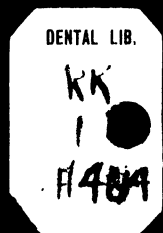
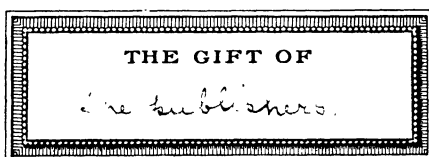
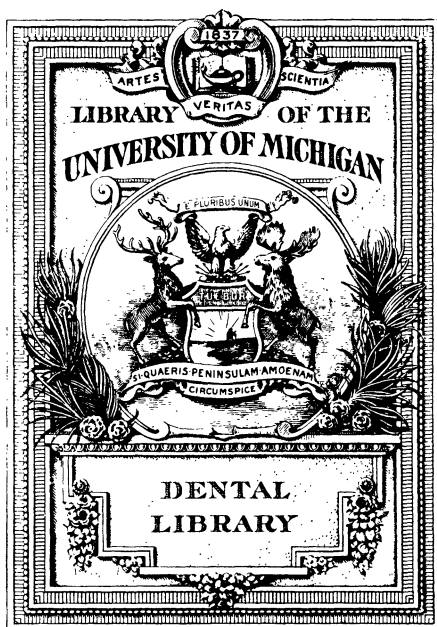


AMERICAN  
DENTAL  
JOURNAL

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1910







# *The* AMERICAN DENTAL JOURNAL

DR. BERNARD J. CIGRAND, Editor

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## *Editorials and Comments*

"The editor has assumed charge of this journal with the signed understanding that he shall have absolute and unlimited control and supervision of the editorial and literary elements; this unusual grant makes it possible to render the profession an independent periodical; the title page clearly indicates the scope under this new policy of this old established journal."—*Publishers.*

### THE BOUQUET CAME TOO LATE.

The old adage, "It is better late than never," applies most happily to the appreciation the dental world and humanity in general has indicated in their regard for Horace Wells, the dentist who gave to the sufferers prolonged anaesthesia.

So often in the history of the world the benefactor was abused during his life, only to be canonized or painted with halo after his bones had become transformed into their original form—the dust. Often it took a generation, more frequently a century, and not uncommonly two hundred years elapsed before humanity recognized the devotion, or the service of the inventor, the discoverer, the literary genius, the general, the statesman or the orator.

The ways of the world are in a measure strange, inexplicable and peculiar. We condemn today, only to revere tomorrow. In the morning we assail what at eventide we loudly praise. At first sight we abuse what at a later acquaintance we approve and shower words of kindness upon.

By this changing and inconstant attitude we bring sufferings, hardships and injustice upon many who merit our earnest assistance.

The world's examples of ingratitude are many. Columbus found a new world, he was repaid by being placed in a damp cell of a prison, where he was allowed to die, away from his friends and in dire poverty.

Balboa led an adventurous campaign of discoveries and found the quiet ocean, which he named the Pacific, and his reward was the executioner's blade.

Cromwell, the Abraham Lincoln of England, died and the populace placed his skull upon a pole, and in a mocking procession paraded through the streets of London, shouting abuse to his dead body; yet he gave the people their first taste of popular liberty.

Robert Morris, of our own country, went from house to house, raising funds for the starving and ragged Continental Army. He gave his own personal notes for the loans; he also gave one million four hundred thousand dollars to the cause of liberty. After the reign of liberty had been established, and Morris had donated all he possessed, he found it difficult to pay his own domestic debts, and he was carted off to jail, where the dampness soon ruined his health, and after a few weeks of release he died.

The world's history has an abundance of such, and even greater examples of ingratitude. Today Columbus is painted with a halo, the Church, which denied him entrance, places him among her saints. Cromwell is almost deified—English admiration has no bounds in its laudations and eulogies. Robert Morris is classified today as among our immortals; he signed the Declaration of Independence, was of the committee which designed the American flag, and is revered, loved and honored, but when he wanted bread for a hungry family he was ushered into a prison.

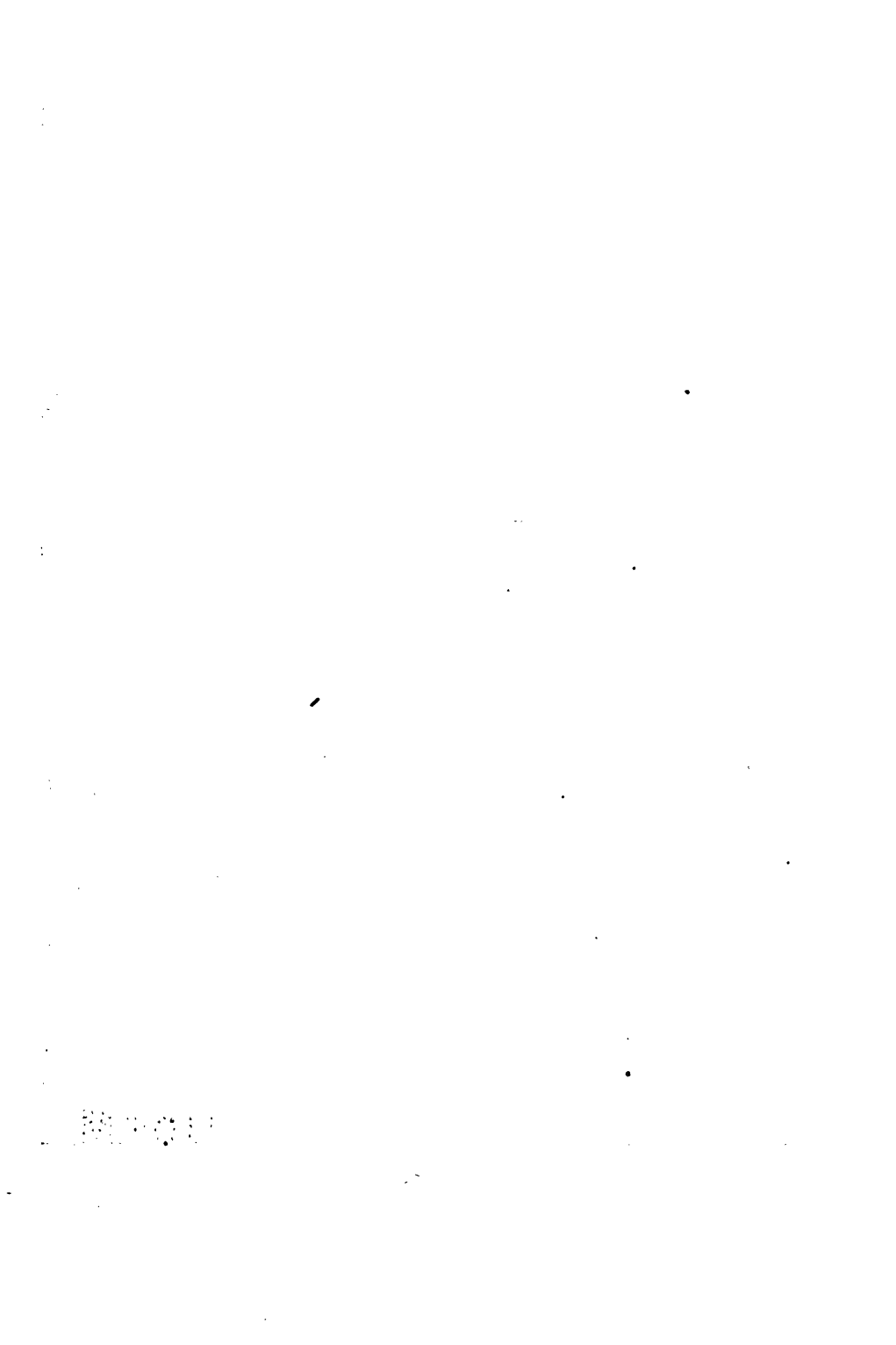
Well, it has been an old story, it will be a tale of every age, and quite likely it is a part of the rough and rugged road all new thoughts, all new departures, all new discoveries, all new inventions and higher ideals must travel. It was also thus with the great Horace Wells, who found little comfort after he discovered anaesthesia. His trials began the day when, by his own sacrifice, he demonstrated that human science could master and control pain. He was ridiculed, publicly humiliated, and by many of his profession ignored as one who was trifling with the supernatural, and classed with the empirics. Others, who faintly appreciated the greatness of his discovery, hoped to rob him of his credit, and daily he was tortured by the unkind and slanderous comments made of both himself and his new discovery.



## PARIS HONORS DR. HORACE WELLS

(From the Cigrand Historical Collection)

*Compliments of The American Dental Journal*



He died, uncomforted by the profession he loved and honored. His death, like that of other giant minds, awakened the populace to his divine accomplishments. Horace Wells, even after his death, would not have received the memorials he now has, had it not been for the goodness of Dr. James McManus of Hartford, Connecticut. To this venerable gentleman of our profession we owe a debt of gratitude for his earnest and faithful devotion to the cause of Horace Wells. From his deep appreciation has grown a true regard of the man who relieved the tortures of the surgeon.

When the writer was visiting the College of St. Come, at Paris, and there shown the old hitching posts where the patients of old were tied, and the guide pointed out to me the so-called beds upon which the sufferers were fastened while the tortures progressed, the thought came: Do we sufficiently regard the contribution of Horace Wells, This dentist, who made internal surgery possible, who substituted smiles, dreams and even laughter where once reigned screams, torturous shouts and lamenting yells? All this benign transformation because a firm, faithful and forceful man was undaunted by the stings of his opponents or the criticism of his neighbors and the doubts of his profession.

Horace Wells did more for human comfort, lent a greater equation or happiness to humanity than any other person in either medicine or dentistry or any other field of science. It was gratifying to learn of the recent unveiling of the statue or monument to Wells at Paris. It was an acknowledgment of which his relations and the dental profession are not the only elated ones; it must make the pride of all Americans rise to the superlative degree to know that an American was thus signally honored by the French Government. The Parisians were present at the function, the dental societies of Paris, of France, of Europe and of America were represented, and a great man has been accorded a high honor.

The flowers, which practically hid the monument, were given in kindest possible spirit, but does it not seem that these bouquets came just a trifle late? Would not the single rose have seemed like a garden had it been given to Horace Wells in the days of his needed consolation? Would not the money spent on his monuments at Hartford and Paris, and given to him meant a continued life and a joyful, painless eveningtime to the man who so bountifully deserved the good will and generous support of all mankind?

If the churches hope to sanctify or institute new names among the

Saints, let them consider the name of Horace Wells, who more than tongue can tell or pen describe, bequeathed to humanity the most essential element of all earthly things, the prolonged artificial sleep.

His service to civilization cannot be repaid. He is dead, and only an increasing memory remains; but his good name should be perpetuated; it will serve as an impetus to youth and aged that the world does compensate, even though the tribute comes late and the eulogy is tardy.

Perpetuate his memory by naming parks, schools, societies and civic buildings in his honor. His picture ought to find its way into every operatory and clinical theater in every medical and dental institution of the world. Such consideration would faintly demonstrate our professional regard for him who made it possible that humanity might lie down to sweet dreams while the surgeon prowled about among the vitals of the body, plowed his knife through once sensitive muscle, or with saw or chisel cut away the bleeding bone.

Horace Wells' career lends us this moral: "Investigate before you condemn; send the flowers while you can yet receive a letter of thanks."

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#### COMMENTS.

The readers all enjoyed the frontispiece entitled, "Questionable Confidence," which picture adorned the July number. Many expressed great delight at receiving this splendid engraving. These kind words together with numerous other expressions of appreciation, serve to inspire the editor and publishers to rendering every service to assure the readers of a continuation of the standard announced. Induce your professional brother to join the subscription list, this will confer a favor on him and contribute additional means for further journalistic advancement. The picture of the monument of Horace Wells, forms this month's frontispiece, and all practitioners will value this latest testimony of the noteworthy service to humanity by one of our profession.

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The following from the editorial page of *The Galveston News* (August 8) will lend support to the statement that the loss of a tooth is a personal injury, difficult to denominate in the coin of any country:

"With the Russian Government Railway paying Mlle. Eduardova,



the opera singer, \$50,000 for five of her teeth, the establishment of a new "highest price" for ivories should lay emphatic approval on the world-wide movement for the preservation of everybody's teeth. Of course, teeth have no real market value; they aren't worth anything to anybody but the possessor, and their value to him depends on their mechanical serviceability; but their loss frequently establishes the fact that they are almost priceless. Mlle. Eduardova did not voluntarily relinquish her teeth to the railway; no more did the railway voluntarily purchase them. Indeed, the prima donna asked double the price, but the damage court named \$10,000 apiece as a fair price for the teeth knocked out in a railway accident. It may be, in the way of appearance or for purposes of clear articulation, that a public personage is entitled to a higher dental rating, but if what the experts are saying is to be credited, the masses are paying the higher price of health and even life itself—a price not to be reckoned in cash—for tooth losses wholly preventable.

# SPECIAL CONTRIBUTIONS.

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## DENTISTS ARE NOT STUDENTS OF DENTAL HISTORY.

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BY BERNARD J. CIGRAND, M. S., D. D. S.

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To anyone who has carefully observed the reading matter in our journals, it must have occurred to them that as a profession, we give exceeding little attention to biographical phases of our distinguished practitioners. Biography has always formed the most interesting as well as profitable reading matter of a nation or profession. Emerson has said: "There is properly no history, only biography."

To become closely acquainted with our leading dental personalities, either the distinguished dead or the eminent living allows you to enter with greater enthusiasm into what the departed have accomplished or what the living hope to attain. A more fraternal spirit on the part of all who form the dental profession will do more towards advancing the standards of both professional excellence and financial success than can be exemplified in this brief paper.

If the dental profession, like the law, the ministry or the Thespian, devoted some consideration to the study of the biography of its dead and indicated a higher and more liberal appreciation of its worthy living, a spirit of professional respect would be inculcated in our students bodies, which in time would tend to foster a real dignified professional attitude. Less severe criticism of the earnest toiler; less sham praise for the supposed leader; and a more candid atmosphere of encouragement will build for us a professional province which will redound to our credit in the days to come.

The study of our historic side of the art and science of dentistry will yield a rich harvest of instructional reading material. The trials of the early practitioners, their eager labors to form a broad and liberal vocation, forms good reading for both the undergraduate and the practitioner.

It will acquaint both with the important element of religious devotion to the task in hand, it will afford instruction in the value of self-reliance; it will teach them the necessity of opposition and inform them of the undaunted courage in surmounting obstacles.

Historical research and a remembrance of the great men who

sacrificed in our behalf, will go far towards effecting an emphatic denial of the lines from Shakespeare: "The evil that men do live after them, the good is oft interred with their bones;" it will show the good survives the grave—and if there was any evil we are glad to forget it.

Incidentally I would like to call your attention to some of the great men who gave us new light on the science and art of dentistry, and one gentleman in particular was Celsus, born at about the time of Christ and who gave to the world the auric or gold suture and many dental discoveries. Then Galen, a Roman, came, about one hundred and thirty years after Christ, and he gave us the art of vivisection, the basis of modern physiology—this told us how animal life is perpetuated. Up to this time meager attention was given to dissection, but even this phase of investigation was limited to a specialized few. But Galen's high standing admitted of his having this right—he was especially liked by the Emperor of Rome and hence this privilege was given him. This subject of vivisection was undertaken about one hundred and fifty years after Christ, and it gave to the world a new impetus, and its results were important since it admitted of a knowledge of the physical and the chemical changes which undergo in the various processes of the human body.

Malpighi ought also to be mentioned in connection with the celebrities—he too did much for physiology and anatomy. He was the one who introduced into the researches of physiology the lenses of the microscope, and by this means brought before the eyes of the world a new and minute creation—a world never before seen and one fully as important as the one to be seen with the naked eye. And for his great discoveries in this direction he belongs among the famed. He was the man who discovered the white and the red corpuscles of the blood, which enter so emphatically into the philosophy of life, and he completed the task of Harvey, since he discovered and first described the capillary circulation—thus rendering the complete route of the blood in its systematic revolution. Another great man was Dr. Schramm of Germany, who discovered the minute animal cells, and thus gave us cell physiology, and this was among the most essential discoveries yet recorded.

The Frenchman, Fauchard, gave us much in porcelain art. He was a mechanic, and attributed his success in dentistry to his knowledge of mechanics. Another man whom I wish to direct your attention to, was also a Frenchman by the name of Praue, who gave us

hypodermic medication, and from which has sprung so many valuable treatments in medicine and dentistry. The world owes him much. Still another Frenchman who deserves particular notice, is Larree or Larry, a man who was noted for his greatness and skillfulness as a surgeon. He was noted for rapidity, and was one of the most successful surgeons the world has ever known. In reading the life of Larree we are told that during the battles he was known to have amputated as many as two hundred limbs in one day; and it was known to have occurred that he amputated an arm at the wrist, or a leg at the ankle, in a trifle over five minutes. He was a genius with the blade—his surgical skill cannot be defined by a modern method of definition.

You will remember that at one time he had as many as ten thousand in his army hospitals. You may also recall that Napoleon said, "Larree was the greatest, the best of souls I have met among men." He was a barber-dentist, and became the great and immortal Larree of the Napoleonic army. He ought not to be left out when we consider the eminent men of our calling. His kindness, patriotism and sympathetic character places him certainly among the profoundly great.

The history of both medical and dental contributions is a subject which should interest all practitioners, and it will afford them the satisfaction of knowing of the evolution of their profession. Why this subject has been so neglected, I cannot understand. It has always been to me an inspiring theme. A moment's meditation—a pause for reflection—may lead us to comprehend our position. What would we think of a minister who had never heard of Spurgeon, or Wesley, or of Beecher? What opinion would we form of a lawyer who had never know much of and cared less for Blackstone, for Burke or for Webster? What would we conclude about an artist who cared nothing for Michel Angelo, for Houdon or for Stuart? What would we all say of a musician who did not know the difference between the music of Wagner and Verdi, or between Bach and Mendelssohn? What ought we tell of an artist of the stage who was indifferent to the great founders of his art—never read Shakespeare, Hugo or Schiller? And lastly, what shall we say of the poet or writer who is unconcerned of the career and works of Longfellow, of Emerson and of the eminent Ruskin? I scarce need give the answer. Yet that is what we as practitioners of dentistry have been doing all the many years. Our

demonstrations of indifference for the great minds and earnest men who labored in our behalf, has been of that disregarding character to which I have directed your attention. We have been indifferent to the eminent great who laid the foundations, built the broad highways and made our progress of today that certainty which it is. Let us devote some little time to inculcating in our own hearts an appreciation for those who gave us what we to-day hold dear and possess; they have liberally bequeathed in every phase of our art and science and have left their hand and brain marks upon every division of the profession.

It is well for us to consider what Henry Ward Beecher once said: "He who thinks the age in which he lives to be the supreme one and has attained to all knowledge, shows by the very remark that he is a personified ignoramus."

Thanks to the men who lived before our time, and devoted so much attention to the science and the art we love—they merit our esteem—they deserve our reverence. The historians, they say, are busy with bones. That, at one time, was the definition of an historian. The nineteenth and twentieth centuries shows that the historian who is only busy with bones is not an historian in the true sense of the term. The historian of today lives with the bones, it is true, but he also lives with the flesh; for what is history, if it is not a part of the present? And what is the present, if it is not really a part of the future? This study of history belongs to us. It is not all of yesterday; it is not all of today; nor does it belong to tomorrow—it is of all time; the past, the present, the future—birth, existence and hope.

Pursuit of historical study will inspire us to love it all the more, for it is a fascinating tale of strife and of devout application. The study of history and of biography is the most profitable of all reading. It is moralizing and it is broadening.

The investigation of these careers of early dentists will teach us the philosophy of life. It will demonstrate in an emphatic way the usual hard and obstructed road to success. These men are splendid examples. These pioneers were ridiculed and found fault with, abused and even slandered. Yet to be laughed at, to be scorned, to be criticised and censured, I believe, is often the highest possible compliment to the truly good and earnest life, as it is indicative of a forceful and eager career. It also means that you are blazing the way, that you are not standing still, that you are not dormant but pushing on and

ahead and possibly getting into new provinces, even into other people's territories, and hence you invite their opposition and even beget their harshest antagonism. But in the world of research you have every right to lead on and enter new fields of thought—no one can deny you the rights of investigation, no one can prevent your onward progress, hence renew your hope, spur on your aspirations and invigorate your laudable ambition, for it is the power which lends inspiration and renders you matchless and peerless in the encounter for truth. You will meet, like those of old, considerable and formidable opposition—your adversary will be alert and imbued with the spirit of intense antagonism—possibly possessing a vitriolic tongue or his pen may be dipped in the inks of hatred, but heed him not, for the goal of success is only reached by an unswerving, eager and indomitable desire to merit the land of truth. No man deserves success who cannot endure censure, and every great man the world has ever produced has brought upon himself censure, has reaped the whirlwind of slander and heard the mockings of the deriding tongues. To be shunned by some is praise; to be scorned by others may mean reward. The men who have made history have all traveled the rough and rugged road; the winding and uncertain way; yet they followed it fearlessly and hopefully until the end. We can bequeath the same heritage by following their good example. The best gems are rubbed into brilliancy; the most precious metals come from the fiery furnace. The smoothest steel has been hammered, filed and sandpapered. All this fire, all this abuse, all this hammering will make you, if you are earnest and honest, all the better. This spirit of criticism and even opposition will always prevail—and it is good that it should, since within due bounds it brings forth much good. It inspires many to prove their worth, it keeps them digging and aids in the battle for the right. The saying: "The tree with the best apples is clubbed the most." If we were not spurred on by this apparently unwelcomed phase, we all would soon grow sluggish, all tend to become phlegmatic and become even lymphatic. It is the thing which keeps us face upward, leading onward and forward. I like to see a man stand criticism, say nothing but "saw wood"—go right ahead and you will be crowned with victory. Kindness will come to you, because the man who pays no attention to abuse, who eagerly praises others and is liberal in comment, who is heedless of scorn, is a magnet towards which all good men are drawn. He is positive, he is the progressive equation in

nature, while his opponent, whose tongue is tipped with slurs and unkindness, is the negative. The faultfinder does neither deserve our time, consideration or patience; he is repellant, false and of no special utility. The critic has some redeeming virtues, he prompts us to improve ourselves, he is the sandpaper and you can become the marble statue. Avoid the pessimists, steer your boat away from the mud, for they are the chilly, clammy kind of friends who are of detriment to your company—they are no good at home, of no value to the church and absolutely without honor in politics. Avoid them as you would contagion, their cowardly manner and cynical voice has brought dismay and ruin to many who lend them their ear. How proud we may all be that the men we revere in dental history and emulate at meetings and laud in print were above these reproachful kind—how deeply we should admire their attitude towards their traducers, and how very happy we can be that regardless and relentless they pursued their themes. They demonstrated the truism of Goethe: "Have an honest purpose and dare to perform it."

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### THE TRAGEDY OF THE MOUTH.

By Illinois State Dental Society.

[The Illinois State Dental Society has, after many years of discussion, finally agreed on the character of a booklet to be placed in the hands of ethical practitioners and their patrons. This departure is certainly in the right direction, and great credit belongs to Chairman Dr. C. E. Bentley and his committee for the preparation of this instructive volumette. The text is illustrated and the subject matter covers thirty-two pages. The AMERICAN DENTAL JOURNAL congratulates the committee and society in this wise educational propaganda, and appreciates the privilege of being allowed to make the following digest of the copyrighted publication.—EDITOR.]

#### Special Contributions.

The Illinois State Society undertook the publication of this booklet with the object of improving the public health. There is a lack of definite information regarding conditions pertaining to the teeth, mouth and their relation to the general health. Digestion commences in the mouth in proportion to the thorough mastication of food. The public is awakening to the fact that there is a close relationship between a clean mouth and a healthy body. These facts should impress on every person the importance of the proper care of the mouth, and this booklet tells in plain language how this may be done.

The Illinois State Dental Society is an organization of nearly two thousand dentists—nearly two-thirds of all the dentists in the state. Its object is to advance the public welfare by doing everything possible to improve dental service.

## AMERICAN DENTAL JOURNAL

The society has ruled that it would be unprofessional for any dentist's name to appear in this booklet.

Copies of this booklet may be obtained from any member of the Illinois State Dental Society.

The greatest deterrent to race suicide is the impetus that modern times has given to hygiene and proper living. This fact is mirrored in the secular and medical literature of the day.

The layman has caught the enthusiasm which is reflected in the current literature of the day. Says the *New York World*: "The real race suicide is to be found in the unhygienic, unscientific care of children, which leaves them the prey to disease and death. There is no survival of the fittest in this sacrifice. It is a death penalty imposed by well-meaning and loving ignorance."

We have arrived at a period in our development when we can say that most all diseases are caused by bacteria. We know that the mouth may be the abiding place of the majority of bacteria that produce disease; that the mouth, teeth and throat are the homes of these bacteria, which multiply and may become an invading foe against which resistance may be futile, and disease, sometimes death, may ensue; that decayed teeth and teeth with pus exuding from around the gums, and this pus being swallowed and finding its way into the digestive tract, are the means of producing nervous disorders and terrible consequences to the general health.

The *Dietetic and Hygienic Gazette* says:

"As has been said: 'If the mouths of the children in our public schools could be examined by competent persons, and instructions given and enforced with regard to the intelligent use of brushes and antiseptic solutions, the death rate in this country would be very materially lessened, and percentage of illness much reduced and a stronger and more vigorous race result in consequence of the prophylactic measures.'

"It has been shown that in an apartment where there is no appreciable current of air, a person coughing or sneezing could scatter germs to a distance of more than twenty-two feet. Germs are scattered through the air by means of salivary droplets. Washing the mouth has the effect of decreasing the diphtheritic and other germs susceptible of being detached. Placing the hand or a handkerchief over the mouth prevents the emission of droplets charged with germs. An unclean mouth is a standing menace, not only to the individual



himself, but also to those in his environment. Such a mouth is a hot-bed for the development of germs alike baneful to the possessor and transmissible by breath to others."

As Hambly says:

"In every mouth at eight to twenty years and later, there is an exposed surface of the top and side surfaces of natural teeth, aggregating twenty to thirty square inches, and a surface of tongue, gum, cheeks and oral mucous membrane amounting to several times that in extent. When such surfaces are covered with decomposing food particles, secretions from inflamed gums, decomposed salivary fluids, mixed with salivary calculus (tartar) and the chemical poisons which result from decomposition due to mingling of mouth secretions and food remains, and maintained at a temperature of 98 degrees F., it is easy to understand the opportunity for growth of germs and the extent to which the system may become infected solely from mouth and teeth conditions."

Under the heading of Tooth Powders, Tooth Washes and Tooth Brushes, the booklet states, in part:

The teeth decay in those places that are not kept clean.

While it is a recognized fact that the indiscriminate use of powders and mouth washes is not the best for the teeth and gums, still the use of tooth brushes, together with suitable powders and washes, are of great importance. But the kind of medicinal agent that each individual should use should be left to some one who is competent to instruct the patient as to the particular means of applying this agent, as the teeth and gums in individuals differ practically as much as their hair and eyes. If the dentist who is consulted is a competent professional man, he will advise the patient what class of tooth powder, tooth brush and mouth wash to use when it is necessary. The wash will pass between the teeth, or at least it should pass between most of the teeth, and in this way take out the greatest portion of food and other foreign matter that may collect there. This collection differs in different individuals, depending upon the length of the teeth and their relation to each other.

Tooth powders are only used ordinarily to assist in polishing the surfaces of teeth, and this process is one of the most essential precautions that should be taken into consideration. The majority of tooth powders that are on the market are made of chalk with a little

pumice stone or cuttlefish ground very fine, and some flavoring agent added, to give them a pleasant taste.

The brush should be used every morning to scrub the tongue and gums as well as the teeth. This not only cleans them, but stimulates the circulation and helps to keep the tissue healthy. The brush should have the tooth powder, paste or wash applied to it, then applied to the surface of the front teeth and the brush rotated, brushing the upper teeth downward and the lower teeth upward; a method which, besides cleaning and stimulating the gums, cleans the spaces between the teeth. Brush all of the teeth in the direction of their length. Probably the most important part of the teeth to be brushed thoroughly is the teeth be not injured. That part of the gum between the teeth is designed to prevent the lodgment of food and other material, and if mouth closed tightly and by alternately distending and drawing the cheeks, the fluid can be made to reach all spaces between the teeth, and thus remove particles not otherwise likely to be disturbed.

The waxed floss silk is valuable for cleaning the spaces between the teeth. If the floss "frays" a roughened surface is indicated, showing that something is wrong, which requires attention. Care should be exercised in the use of floss silk that the portion of gums between the teeth be not injured. That part of the gum between the teeth is designed to prevent the lodgment of foods and other material, and if injured is apt to recede, usually resulting in inflammation of the gums and decay of the teeth. The fingers should be well braced against teeth so that the silk will not slip and thus injure the delicate gum structure.

The tooth pick should be of quill. Metal picks are not advisable, neither are those of wood, as they are liable to break, leaving slivers to become imbedded in the gum. In the use of the tooth pick, care should be taken not to injure the portion of the gum that occupies the space between the teeth.

In treating of the diseases of the gums, the following appears:

The disease commonly known as pyorrhea alveolaris is, probably, the most prevalent of all dental diseases; for more teeth are lost from this condition than all others combined. The disease occurs in the mouths of all classes of people—more frequently, however, in the mouths of those who have been rather neglectful in regard to the

care of their teeth. Yet pyorrhea can and does occur in the mouths of those who give their teeth the best attention.

The most important thing to be impressed upon the mind of the patient is the fact that the best and most permanent results can be obtained by dentists in the treatment of the disease when it is recognized and corrected in its early stages.

The disease generally begins by some foreign substance, such as (tartar) deposited on the teeth, causing irritation of the gums. Unless this tartar is carefully removed the disease gradually progresses and the tissues around the roots of the teeth are destroyed. Thus pockets are formed about the teeth into which filth and bacteria accumulate.

This condition will generally be manifested by the teeth shifting their position—either spreading apart or rotating, or both; pus flowing from the pockets when pressure is made over the tooth-root, and the affected teeth gradually becoming loose and the gums sore or tender and bleed easily.

There is no dental disease in the treatment of which it is so important for the dentist to have the hearty co-operation and support of the patient as in the treatment of pyorrhea. No medicine has ever been suggested which will cure pyorrhea, and the sooner this fact is recognized by both dentist and patient the better for all concerned. The only known remedy is the thorough removal of all irritating substances of whatever nature, and the polishing of all exposed tooth surfaces by the dentist, and the subsequent proper use of tooth brush, powder or paste to keep the teeth and gums in a healthy condition.

The six-year molar receives consideration:

“According to Nature’s plan of the human denture all of the teeth are essential, yet in function and influence some are of greater importance than others, the most important of all being the *first permanent molars*. They are the largest of the teeth and the firmest in their attachment, which, together with their location in the arches, makes them the most important teeth in the function of mastication. Being the first of the permanent teeth to take their position in the arches, they exercise great control over the positions which the other teeth anterior and posterior to them shall occupy as they erupt at their respective periods and take their respective places in the mouth. As they are already developed and firmly attached in the alveolar

process when the other teeth appear, the latter are built into the dental apparatus around them, as it were."

Furthermore, these teeth are often for a considerable period the sole means of mastication during the change from temporary to permanent teeth.

Thus, it will be seen that the loss of this tooth or loss of its use through disease or malposition may have serious results in checking or perverting the development both local and general.

Too early loss of the temporary molars, or imperfectly contoured fillings in them, allows the first permanent molars to tip forward and as they are the bases of the permanent set, the other teeth must also erupt into improper positions.

If the first molar is lost, the *whole dental arrangement is irreparably damaged*. The teeth behind it tip forward until they are often of little use in mastication, while the anterior teeth move in and back, losing their value in proportion to the movement and also invariably causing a deformity in the opposing set of teeth and contour of the face.

The care of children's teeth also gets several pages; in part the booklet states:

If the mother takes good care of the teeth of the child it bids fair to start life well equipped for the struggle.

It is an axiom that one of the first requisites for the maintenance of a sound mind and a sound body, is a good set of teeth. On good teeth depend good digestion, and on good digestion depend not only good health, but even life itself.

Be especially watchful of the baby's food that its character be not in advance of its bodily capabilities. In other words, do not let anything enter its mouth, either of a quality or quantity that it is not able to retain and digest.

Somewhere about the end of the sixth month, if the baby has been thriving normally, the first of these crowns, usually the lower front teeth that were lodged in its little jaws when it was born, will appear, and these will be followed at more or less regular intervals by the upper incisors, then the "back" teeth and lastly, usually by the cuspids or as they are popularly called, the "stomach" and the "eye" teeth. The following list shows about the time when these teeth should erupt through the gums:

Two lower front teeth, at 5 to 7 months.

Two upper front teeth, at 6 to 8 months.

Two more lower front teeth, at 7 to 9 months.

Two more upper front teeth, at 8 to 10 months.

Four back (molar) teeth, one on each side of each jaw, 10 to 14 months.

Four more molar teeth, back of the others, at about 2 years.

Four cuspids ("eye" and "stomach" teeth) at 2 to 2½ years.

#### TIME FOR PERMANENT TEETH.

	Years
First molars .....	5- 7
Central inferior incisors.....	5- 7
Central superior incisors.....	6- 8
Lateral incisors .....	6- 8
First bicuspids .....	8-10
Cuspids (canines) .....	9-12
Second bicuspids .....	10-12
Second molars .....	12-14
Third molars (wisdom teeth).....	17-25

Teething in a healthy child is itself a normal function. It is only when associated with outside disturbances, especially with those due to indigestion, or other abnormal conditions, that it may become a source of serious trouble, or when one function is overestimated at the expense of another, so that, for example, the teeth grow faster than the overlying tissues are absorbed to make room for them.

So, when these little milestones have all appeared, do not get the idea so prevalent, that as they are only "temporary" teeth, their preservation is not of much consequence. It is of supreme consequence. Their presence in the mouth up to the very moment their successors are ready to take their place is absolutely essential.

Therefore, as the welfare and normal function of the first set of teeth has such an important bearing on the child's health, and as it is, from the time of its emergency continually surrounded by conditions that so easily and rapidly become injurious when neglected, it must be one of the mother's duties to control these conditions, and as a means to an end, foster in the little one the habit of oral cleanliness. Cleanliness is the key to the proper care of mouth and teeth. If the previous chapters are read carefully, they will tell the means to employ, for in principle they are alike for child and adult.

The "green stain" so often found on the teeth of children, is a most dangerous deposit. It is not only unsightly and a reflection of the child's personal habits, but if permitted to remain may injure the teeth.

After the first teeth are all in place, teach the child to use them. Sometimes, however, the permanent tooth may start to emerge either inside or outside the arch. The root of the temporary tooth then fails to be absorbed, and it is an obstruction which must be removed before the second tooth has been forced out of line. Hence, special oversight should be had at this time. So important is this that the child should be under the constant supervision of a competent dentist during this entire period.

The question of "What care teeth of pregnant women require," is also treated in part as follows:

Any departure from normal health has a corresponding effect upon the secretions of the glands of the body which in turn find their expression, more or less, in the salivary fluids of the mouth. These salivary fluids, which constantly bathe the teeth, constitute the chief element of the teeth's environment. In proportion as they are healthy or unhealthy do the teeth succumb to decay or resist it. The commonly accepted idea that teeth are "hard" or "soft" and succumb to the ravages of caries (decay) is erroneous. It is the character of the fluids within the mouth, together with bacteria that have the greatest influence upon the decay of the teeth.

The teeth are in greatest danger when the saliva is "ropy," "stringey" and difficult to expel from the mouth.

This condition of the saliva is usually accompanied with a collection of debris upon and between the teeth which is difficult to remove.

Very naturally, the prospective mother has her attention riveted upon all things to produce a healthy child and, thinking of the larger things that go to produce this result, neglects her teeth in consequence.

Gestation (child-bearing) while a normal function, seriously interferes with normal action of the organism during its process. In the human species, all and many more of the conditions of the mouth above referred to, exist. The ravages of the teeth of the prospective mother, before the dawn of dental hygiene, were colossal. Today a mother can be carried through this period without the loss or serious

impairment of any of her teeth. The whole treatment is wrapped in one word—"CLEANLINESS." How this should be done has been referred to in other parts of this booklet. The only excuse for reference to it here is to emphasize it forcibly upon this class of patients.

A mouth wash that is strongly acid or alkaline should not be used by pregnant women. The old idea that dental operations should not be performed during this period is wrong.

An abridged form of the ten commandments offered, reads as follows:

1. Omit to wash your face rather than neglect cleansing your mouth and teeth.
2. Instruct your children as early as possible to take care of their teeth.
3. Beware of sweets and too soft bread. Active mastication of firm, thick-crustcd, hard, rye bread is the best natural preventive against disease of the teeth.
4. Do not forget above all to cleanse the mouth before retiring to sleep.
5. Mechanical cleansing, by the aid of brush and water, is the foundation of all artificial care of the teeth.
6. Antiseptic, but harmless, mouth washes and suitable powders or pastes, are entirely commendable to perfect the artificial care of the teeth and mouth.
7. The teeth should be examined at regular intervals.
8. Tartar is to be removed from time to time.
9. Diseased teeth and roots which cannot be made useful should be removed.
10. See that the prospective and nursing mother is supplied with suitable food rich in salts (green vegetables, milk, eggs, etc.) in order that the child's teeth may be properly developed.

The important topic of dental service is the last chapter in the book, and in part recommends:

An erroneous impression prevails among many people that the fees of some dentists are exorbitant—an impression based upon an improper understanding of the conditions. With many persons seeking dental service the chief thought seems to be, not how to prevent further mischief and retain what is left of their dental organs in as perfect condition as may be, but how cheaply immediate palliation of

their discomfort can be secured and as though there were no gradation in skill nor in value of the materials used and making no account of the time required for faithful service. Teeth are necessities, not luxuries. Bad is the policy and worse the intelligence that will, for the sake of a few dollars, choose a dentist not from the standpoint of ability but of cheapness.

Cheap dentistry is not economical dentistry—no matter what you pay for it. There is a point where cheapness ceases to be economy; below that point it is not economy, it is folly. It is far easier to have superior, scientific service in the first place than to be continually annoyed with inferior work. He who charges nothing for his work gets all it is worth.

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### TREATMENT OF PUTRESCENT CANALS.

BY GEORGE B. HARRIS, B. SC., D. D. S.

Under putrescent pulps I wish to treat all those conditions where the infection has not passed beyond the apical foramen.

In the treatment of putrescent pulps the use of the rubber dam is of vital importance. First, we must remove all decaying matter possible. In so doing we also remove large numbers of bacteria and without the use of the rubber dam we infect the canal with more bacteria than we remove. This is true more with the lower than the upper teeth, but it is next to impossible to produce anywhere near a sterile condition in the canal without the use of the rubber dam. It may seem possible to remove the pulp, and not infect the canal, without the rubber dam, and in a few cases it may have been done, but, I believe, the large majority of those seemingly successful cases are not, in reality, successful. There may not be any trouble arising from any infection caused at the time, but many abscesses appearing months afterward and attributed to other causes, can be traced to the removal of the pulp without strict aseptic conditions, and could readily have been prevented had the operator used strict aseptic conditions at the time of the operation.

You cannot restore such conditions, due to infections, to a strict aseptic condition, by using infected instruments. It is also very difficult to produce a strict aseptic condition within a root canal under the most aseptic conditions, which I will endeavor to show. We may be able to so inhibit the growth of bacteria by producing a condition un-



favorable to their development and by reducing their numbers by the removal of large numbers of bacteria and killing many by antiseptics, but to kill all or remove all is almost, if not quite, impossible. The germs penetrate the dental tubulae and so protect themselves that the antiseptics cannot and do not reach them. The antiseptics that may have been used in the treatment of these conditions, no doubt, prevent any further trouble until their strength is exhausted, when a condition favorable for the growth of bacteria again returns and the old trouble appears. The reason for this is plain. Some of the bacteria are capable of great resistance due to their ability to form spores. These spores, in some instances, are capable of resisting boiling water for twenty minutes and even longer. Now when we consider that boiling water is the best means of sterilization, we can readily see how easy they may resist any chemical agent at our command. As a seed is capable of maintaining life for years until finally a favorable condition presents itself and the seed sprouts and a plant is the result, so it is with these spores.

To kill these spores, there is only one way. That is to remove all food particles (by that I mean disintegrated dentine which forms the food for bacteria), and then apply a *good* antiseptic. A great many germs will then be killed, but not those that are in such a state of development that they are capable of protecting themselves by forming spores, nor will it kill those well within the dental tubulae, for the obvious reason that the solution is incapable of reaching them. Nor will a continued treatment kill them. An intermittent treatment is the one and only means of overcoming them. That is, first fill the canal full of the antiseptic and seal it in with temporary stopping. Let it remain twenty-four hours and then remove, using the rubber dam at each and every treatment. Remove this treatment at the end of the twenty-four hours and wash out as much of the antiseptic as possible with water and seal again for twenty-four hours. This will give the spores a chance to develop, but too short a time for them to multiply to any extent. Then apply the antiseptic again for the same length of time. Three applications will produce a sterile condition.

In one case where I cleaned out the canal as much as possible and treated it with formalin and cresol daily for six days, I was able to raise cultures of bacteria from the dentine removed at the end of that time showing that there was absolutely no aseptic condition. I

then treated the tooth by the intermittent method described and was not able to raise a single culture under the most favorable conditions.

In cleaning out the canal great care should be used not to go beyond the apex of the root and thus infect the surrounding tissue.

In the treatment of these conditions we should use care and good judgment in the selection of our antiseptics. The mild antiseptics used in mouth washes will often give as good results and not damage the tooth structure. Hydrogen peroxide should never be sealed in a putrescent canal. In fact, the only place this compound is of importance is as a bleaching agent.

Let's see. Now when we seal hydrogen peroxide in a putrescent canal we use it for its antiseptic properties. Is hydrogen peroxide an antiseptic? If so, where does it get these properties? I put a culture of peremesium under the microscope and added hydrogen peroxide. The antiseptic properties were well shown by the way these organisms multiplied and continued to do so until all the oxygen was liberated, when they returned to their normal rate of development.

Now, the majority, yes, I might say all the germs causing the decay of teeth and all putrefactory bacteria are facultative anaerobic germs, *i. e.*, those which prefer living in air, but can exist without it. At least there are no strictly anaerobic germs involved as they would not be able to exist in the presence of the oxygen contained in the air. Now just a glance at hydrogen peroxide. Hydrogen peroxide is composed of two parts hydrogen and two parts oxygen, hence any antiseptic property must come from either the oxygen or hydrogen. The graphic formula for hydrogen peroxide is  $\text{H-O-O-H}$ . That of water is  $\text{H-O-H}$ . Now hydrogen peroxide, when not under pressure, will give off one molecule of oxygen, the remainder forming water as shown by this equation  $\text{H-O-O-H} \rightarrow \text{H-O-H} + \text{O}$ . Water is formed, and water, we know, is not antiseptic, hence the antiseptic properties of hydrogen peroxide must come from the oxygen liberated. Since these germs prefer, and multiply more rapidly in the presence of air and the oxygen contained, where is its usefulness as an antiseptic?

Not only does hydrogen peroxide fail to have any beneficial effect when sealed in the root canal, but it has a harmful one. When it is sealed in a putrescent canal and gives off oxygen, this gas cannot escape through the opening into which it was put, so it passes through

the apical foramen into the surrounding tissues and carries with it infectious material with which it comes in contact while passing through the canal.

In first opening a putrescent canal where there is pus and gas and where any pressure on the tooth causes a great deal of pain I would suggest the ether spray. I find by this means it is possible to open a canal with almost no pain. The spray reduces the temperature, hence contracting the gas and also keeps the bur cool. This method is especially useful where the anterior teeth are affected. Where the spray cannot be had a piece of ice will answer the purpose very well, or a continual spray of cold air or water.

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JOHN STARKE.

"Husband of mine, why and where do you ride today?

Where the wraith of death midst the guns' roar swims?"

"Sweetheart o' mine, I ride me forth to the battle's bray,

Where old Green Mountain the sky-line rims."

There lies his axe upon the chips,

The hoe is hanging on the fence;

Let naught but blessing pass our lips,

And from each heart true reverence.

From plow to battlefield he goes,

Untutored in a warrior's skill

To match his brawn 'gainst British foes,

At Bennington and Bunker Hill.

With patriotic zeal aflame,

He answers to the roar of guns,

Fights panther-like and leads to fame

Eight hundred of New England's sons.

At Trenton's charge, midst smoky haze,

Beneath a scorching, summer sun,

With gun to gun on field ablaze

He fought trained red coats—vict'ry won.

No musket mouth nor gleam of sword

Could swerve Stark's men from purpose tense;

Nor fierce assault of Hessian horde

Could drive them from the "old rail fence."

See fury flame that eagle eye  
    "Mark his grip on that heavy gun!"  
For love of Fatherland, he'd die—  
    For liberty—and Washington.



"O in the travail of your birth  
    My Country, in your darkest need,  
You found the gage of manly worth  
    In warriors of the yoeman breed!"

What epitaph shall we indite,  
    The worth to tell of this brave son?  
On granite page, deep graven write:  
    John Stark, Hero of Bennington.

—J. D. Robertson.

# EUROPEAN PROGRESS.

THOMAS L. LARSENEUR, D. D. S.

## COPPER AMALGAM.

*(Deutsche Monatsschrift für Zahnheilkunde, q.)*

Copper amalgam, like all other dental innovations, has its variegated history. After Miller had demonstrated that it possesses a certain bactericidal action, it was used generally in a most uncritical manner, and in the same way condemned because it did not fulfill all expectations. The author, after having familiarized himself with the manipulation of copper amalgam under Miller's personal instruction, considers this amalgam next to gold as the best filling material available. After many experiments he finds that copper amalgam which can be worked after the addition of very little mercury gives the best results, provided, that the cavity preparation and the polishing have been attended to at least as carefully as in a gold filling. The benefits to be derived from an amalgam that contains but little mercury are the following: Such an amalgam attains a higher degree of hardness, and its wearing away, which is due to purely mechanical abrasion, is much lower. It adapts itself to the cavity walls as closely as cement, and if prepared properly, does not discolor the body of the tooth. The amalgam itself becomes black, the tissue of the tooth remains white (only if present in excess does the mercury enter the dentinal tubules and discolor the entire tooth) thus making copper amalgam the ideal filling material in children's molars, that in later years can be refilled with gold. Children should not be prejudiced against the dental office by very long operations at an early age, and a skilled practitioner can insert a perfect amalgam filling in a short time.

The principal condition for success in the introduction of the material into a perfectly dry cavity. If the cavity is properly prepared there will be no recurrence of caries. Secondary caries is frequently due to careless cleaning and shaping of the cavity, prompted by the blind faith which some operators put in the antiseptic action of copper amalgam.

Copper amalgam that is poor in mercury must be pressed against the cavity margins with considerable force, thus prevent-

ing perfect adaptation which is frequently noticed in soft copper amalgams rich in mercury, and precluding secondary caries.

The bluish black, brilliant shade of an amalgam filling poor in mercury surrounded by normal tooth structure is preferable to the unclean, pale, muddy appearance of amalgam fillings rich in mercury and their surroundings. If, after being in the mouth for from five to ten years, the amalgam filling is abraded at the surface by from  $\frac{1}{2}$  to 1 mm., it is undercut all around and filled with a new layer of amalgam. If the first filling has been prepared carefully, it is unnecessary to remove it entirely, for if the borders show no caries it is certain that the infection has not penetrated into the depth of the cavity.

Copper amalgam that contains an excess of mercury cannot be freed of it by pressure, be it ever so strong. Pellets of such amalgam have a dull grey appearance, and on heating, mercury globules appear on the surface, which on cooling immediately retreat into the pellets. Pellets of copper amalgam poor in mercury have a brilliant, bluish black, mirror-like and slightly oxidized surface from which the mercury globules that appear on heating fall off, enabling the operator to still further reduce the contents of mercury.

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#### ON THE DIAGNOSIS OF EMPYEMIA OF THE ANTRUM BY MEANS OF AUSCULTATION.

(*Le Laboratoire et le Progrès Dentaire Réunis*, Paris, March 13th, 1910.)

Dr. Mink considers that diaphanoscopy is a method which is subject to errors and that radiography is not in all cases available, and he suggests a method of diagnosis by auscultation which is easier and more efficacious.

The auscultation can be made by means of an India-rubber tube with a suitable ear piece attached at one end and an otoscope at the other end. The otoscope is applied to the maxillary bone at the canine fossa, and the patient is requested to breathe quietly. If the sinus is clear, a typical amphoric murmur is heard, which is accentuated by increased respiration. This murmur does not originate in the nose, as might be thought, as it is still present,

although diminished, when the maxillary orifice is obstructed with a pledget of cotton.

When the antrum is full of fluid, upon auscultation, nothing is heard. These facts have been experimented with and verified in patients having a sinus connecting with the antrum, fluid was injected and then auscultation was made.

Negative auscultation does not necessarily mean that there is fluid in the antrum, there may be a tumor existing in the antrum; or there might be an obstruction of the nasal fossa by a polypus or by a swelling of the mucous membrane. It should be ascertained that the nasal fossa is free, and the author recommends the use of cocaine and adrenalin solution for this purpose.—(*Archives de Stomatologie.*)

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#### A NEW METHOD OF ELECTROPLATING.

(*The Dental Surgeon*, March 19th, 1910.)

Mr. Rosenberg said that for deposition of each particular metal there was required a corresponding powder containing the appropriate ingredients. Zinc, cadmium, nickel, cobalt, tin, silver, antimony, bismuth, gold, platinum—in fact, all metals generally deposited by “battery” process—could be deposited from powders by the Galvanit process. Further than this, alloys such as brass, gun metal, German silver, cadmium silver, and a number of others could be similarly deposited. Speaking generally, a powder containing any given metal could be used to deposit that metal on objects of any metal whatever, even if the metal to be plated was identical with that contained in the mixture, e. g., zinc upon zinc, silver upon silver, etc. This was impossible under the old contact process.

The mixture employed invariably comprised, first, some form (whether elementary or combined) of the metal to be deposited; secondly, an electro-positive metal in the uncombined form; and, thirdly, a substance which was capable of producing an aqueous electrolite when brought into contact with moisture.

With regard to the electro-positive metal to be employed, magnesium was the most electro-positive metal which it was practicable to use, and it was of general application. In some cases,

however, a less electro-positive metal such as aluminium, zinc or cadmium worked well enough. The choice of the electro-positive metal which was to serve as the anode depended both upon the metal to be deposited and upon the nature of the receiving surface or cathode to be coated. Thus, zinc could be used for depositing nickel upon copper or brass; whereas, on the other hand, magnesium would work well in both cases.

If the metal to be deposited was present in the form of a salt, this salt, in conjunction with moisture, served as the electrolyte. Therefore, two ingredients would theoretically be required, the salt and the electro-positive metal; but in practice, it was found that by mixing a salt, say tin chloride, with an electro-positive element, such as zinc or magnesium, a violent reaction took place, evolving great heat, and the mixture was spoiled for practical purposes. Even if the reaction did not take place the deposition would be too rapid, and the coating would be uneven and of a bad color, or "burnt on." Therefore, it was advantageous to add to the mixture certain substances which were relatively inert, such as chalk, soapstone (talcum) kieselguhr, boracic acid, dextrine, etc. These substances acted first as a diluent, and secondly as a polishing medium; and as the materials employed possessed an inherent tendency to react upon one another, these substances acted as a coating and prevented premature action. A practical mixture containing the metal to be deposited in a metallic state instead of a salt, say, for example, such a highly electro-positive metal as zinc, contained zinc 15 parts by weight, ammonium sulphate 5 parts, magnesium 1 part, chalk 10 parts, and soapstone 2.5 parts. The ordinary zinc dust of commerce was quite good enough for the purpose, notwithstanding the considerable portion of oxide and impurities which it contains.

If some other metal instead of zinc, say cadmium, had to be deposited, metallic cadmium was substituted in place of the zinc. The talc served the purpose of preventing the mixture from absorbing moisture, either when stored or when exposed to the action of the atmosphere for very long periods of time. The chalk was useful as a diluent or filling, and as a polishing agent, and also as a source of alkalinity. The new deposition process depended upon the reaction which immediately ensued between one ingredi-



ent (the electro-positive metal) and the other ingredient (the metallic salt) so soon as the addition of the moisture to the mixture converted the latter into an electrolyte. In this reaction the electro-positive metal constituted the anode, and the object treated the cathode; and as Galvanit contained a quantity of finely powdered electro-positive metal, it made innumerable contacts with the cathode surface, and acted as so many minute anodes. These innumerable minute anodes gradually dissolved, and in dissolving set up in the liquid little local circulations of electric currents. The circuits were so excessively small, so exceedingly near together, and so numerous that they could not be separately observed, and the surface of the metal became the seat of innumerable concomitant voltaic and electrolytic actions. Thus the potential or stored-up energy of the elementary substances in the powder was converted into electric currents, and as these currents left the liquid they threw down from the metallic salt in solution a thick film on the cathode, and it became plated over with a deposit.

A probable explanation of the formation of the metallic deposit was that the water was decomposed, the salts in contact with the cathode were reduced to the metallic state by the nascent hydrogen, and the acid thus formed was prevented from corroding the deposit metal, both by the motion applied and by being immediately removed into the mass of the liquid by diffusion.

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#### ACCIDENT OF THE THIRD MOLAR FOLLOWED BY DEATH.\*

By Dr. M. Hoebaers, Bruxelles.

(*Revue Trimestrielle Belge de Stomatologie*, March, 1910.)

The case which I shall cite below is, I believe, full of interest in more than one respect. Here are the facts:

On August 24, 1909, X— called on me for consultation, and here are in a few words the history of the case: General depression had been noticed for the past few weeks without any appreciable cause. In the past few days the appetite had been lost and heaviness of the head is noticed, the patient has a general decomposed countenance. The tongue is somewhat coated (*saburral*); the temperature and pulse are normal, no diarrhea nor constipation.

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\*Paper read before the Societe Belge de Stomatologie, Oct. 17, 1909.

The patient complains of the first lower left molar, which he claims is very painful and wishes to have it removed. This tooth had been filled by the writer on the 9th of last April, after devitalization and removal of the pulp. The filling used was amalgam. Under close examination of the tooth and surrounding tissues no abnormal condition can be found, no trace of pericementitis can be found. The upper and lower maxillaries are apparently in the best of health. Of the four third molars none have yet made their eruption; examination with the finger does not even show their existence. No disturbance can be located nor aroused back of the second molars.

Treatment:—The extraction is deferred. Laxatives and hot baths of the mouth are advised. The patient is then dismissed for two days, but returns on the following day.

August 25.—The patient insists that the filled first molar should be extracted, and he affirms that the pain is seated underneath the first molar and it is more defined than the day before. The tooth is slightly painful to percussion, although if unknown to the patient, the second molar or the distal portion of the second bicuspid are touched the same pain is noticed. If on the other hand, the patient is aware of the facts, he at once gets confused in his reply. The tooth is then removed without the use of an anesthetic, the patient is immediately relieved. Under close examination of the tooth, the roots proved to be in the best of health and no trace of pericementitis could be found, I therefore expected to see the patient return.

August 26.—Slight tumefaction of the cheek opposite the tooth which had been extracted the day before. The lower left second molar was very sensitive; in the absence of all other symptoms this is attributed to the extraction of the first molar. No sign of septicemia can be found in the cavity left by the extracted tooth. This socket is washed with antiseptics and antiseptic mouth wash is prescribed.

August 27.—The symptoms of the second molar are almost all disappeared, although the tumefaction has increased slightly and has shifted towards the angle of the maxillary. There exists a trismus which is barely perceptible. Examination opposite

upper and lower third molars shows nothing which would lead to the presence of these teeth.

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#### DEATH UNDER CHLOROFORM.

The West Cheshire Coroner (Mr. J. C. Bate) held an inquiry on Nov. 24th, 1909, in Wallasey, into the death of Lucy Craddock, aged 28, a domestic servant, living apart from her husband. Arthur Capper, a New Brighton dentist, said deceased called upon him respecting teeth extraction. She did not seem surprised when he recommended her to have twenty-five teeth removed. He told her she would have to take chloroform and she willingly agreed. Dr. Alfred Johnston spoke to attending the Wallasey Cottage Hospital last Wednesday and administering the customary anesthetic. He examined the woman, and concluded that she was a fit subject for chloroform. She showed signs of collapse during the operation and despite all remedies, the woman succumbed. The post-mortem examination which was conducted by Dr. Napier proved that the right side of the heart was dilated, but it was impossible to diagnose this in life, as that side of the heart was turned inwards.

The jury found that the anesthetic had been administered skillfully and that proper care had been taken, death resulting from misadventure.—(The Dental Surgeon.)

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A painful feeling was created in the Arbroath community, when it became known that a young woman, Mrs. Neave had died on Sunday forenoon, Nov. 14th, while having some teeth extracted under chloroform. Mrs. Neave collapsed while under the anesthetic, and despite the efforts of her medical attendants passed away within half an hour. Mrs. Neave was 27 years of age.—(Dental Surgeon.)

# JOURNALISTIC GEMS.

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## IMMORTALITY.

Lines written by the late Joseph Jefferson during a summer cruise with Grover Cleveland and Commodore Benedict on the latter's yacht Oneida. Jefferson said we all of us believe in the future life, but none of us knows. The following doggerel, he said, was a bridge between faith and reason:

Two caterpillars, crawling on a leaf,  
By some strange accident in contact came;  
Their conversation, passing all belief,  
Was that same argument, the very same,  
That has been "proed and conned" from man to man,  
Yea, ever since this wondrous world began.

The ugly creatures,  
Deaf and dumb and blind,  
Devoid of features

That adorn mankind,  
Were vain enough, in dull and wordy strife,  
To speculate upon a future life.  
The first was optimistic, full of hope;  
The second, quite dyspeptic, seemed to mope,  
Said number one, "I'm sure of our salvation."  
Said number two, "I'm sure of our damnation;  
Our ugly forms alone would seal our fates  
And bar our entrance through the golden gates.  
Suppose that death should take us unawares,  
How could we climb the golden stairs?  
If maidens shun us as they pass us by,  
Would angels bid us welcome in the sky?  
I wonder what great crimes we have committed,  
That leaves us so forlorn and so unpitied?  
Perhaps we've been ungrateful, unforgiving;  
'Tis plain to me that life's not worth the living."  
"Come, come, cheer up," the jovial worm replied,  
"Let's take a look upon the other side;  
Suppose we cannot fly like moths or millers,

Are we to blame for being caterpillars?  
 Will that same God that doomed us crawl the earth,  
 A prey to every bird that's given birth,  
 Forgive our captor as he eats and sings  
 And damn poor us because we have no wings?  
 If we can't skim the air like owl or bat,  
 A worm will turn 'for a' that.'"  
 They argued through the Summer; Autumn nigh,  
 The ugly things composed themselves to die;  
 And so, to make their funerals quite complete,  
 Each wrapped him in his little winding sheet.  
 The tangled web encompassed them full soon.  
 Each for his coffin made him a cocoon.  
 All through the Winter's chilly blast they lay,  
 Dead to the world, aye, dead as human clay.  
 Lo! Spring comes forth with all her warmth and love;  
 She brings sweet justice from the realms above;  
 She breaks the chrysalis, she resurrects the dead!  
 Two butterflies ascend, encircling her head.  
 And so this emblem shall forever be  
 A sign of immortality.

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### BUSINESS ABILITY.\*

BY DR. C. D. GILMAN.

The object of dentistry from a business standpoint, is obviously the one common to every calling the making of money.

The dentist owes it to his family, his community, and to himself, that he be a producer and that he maintain his dignity.

I know of nothing undignified in the making of money honestly and ethically, notwithstanding the following quotation to the contrary. I quote from the back of the *January Cosmos*—"The man who enters a profession with the primary idea that it shall serve him as a medium for making money, enters that profession upon a false basis; and while it is possible that he may, to a certain and perhaps marked extent, succeed, to that end, yet he by no means gets at the real essence of the profession."

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\*Read at the Annual Dinner of Alameda County Dental Society, February 2, 1910.

Gentlemen, I would dislike very much to have any of you think me unethical or mercenary. I would dislike very much to have any of you think me incapable of appreciating the old-fashioned beauties of altruistic practice, but I can not agree with the above quotation.

Most dentists are good fellows, and, I think, are fond of the birds, the bees, and the butterflies. They like to see the blue sky and watch the hollyhocks nodding in the sunshine. They, in common with the other men, like to dream now and then, but it behooves them all to limit the dreaming in the practice of dentistry.

I recognize no need of apology in entering the practice of dentistry with the object of making money.

Any institution to be enduring must be helpful or hopeful. Helpful now or hopeful of becoming so, and dentistry cannot be either, if the dentist loses sight of the business side of his calling.

Business ability, then, is a desideratum of the ideal dentist.

Indeed, I cannot see why it is not as important a feature as any. It is far-reaching and comprehensive. It embraces all the subjects into which the committee has divided the topic for the evening. Tact, skill, cleanliness and the rest.

All business men should possess tact. Is not the dentist a business man?

All business men should possess skill—each in his way.

Is not skill the foundation of dentistry?

Who would not be clean?

What right has a man to be married if he cannot support a family?

Of what use is a dental society to a man who has not the business ability to see its advantages?

It is from the business standpoint, I think, that the line of demarkation between commercial and professional life should be at least well defined.

If viewed from the standpoint of the ideal, questionable practice will not be tolerated by either.

The merchant, the manufacturer and the professional man meet on mutual ground. They all do something for something.

Money enters into it, only as a convenient medium of exchange. I fail to see why the right to earn this medium, and to get it when it is earned should not be shared equally by all. The difference is merely the personal equation, as expressed by "Business Ability."

Merchants, manufacturers and professional men are all in business. All have goods upon their shelves to sell. Only the merchandise on the dentist's shelves is Time. He must get as large a fee for as little time as is consistent. This time must be sold in as attractive a package as possible—and delivered. Nor can he long hope to sell "Time" to a business man, delivery promised at a certain hour, and keep him waiting in the reception room, or tell him to call again. If he keeps a business man waiting an hour today, how can he charge him for an hour's lost time tomorrow?

It is not tact. It does not reflect "business ability."

The package in which he sells his Time is his office where delivery is made. It must be conveniently located and convenient when located, well lighted, well ventilated and simple.

Absolute cleanliness must be observed in all things; absolute asepsis in many and the patient must be made to know this; to depend upon it and to demand it.

Make the package as attractive as possible. These things reflect personality and an acceptable personality is a desirable quality in the ideal dentist, from any standpoint.

It is an evidence of business ability to view things from the patient standpoint. They may not realize that the dentist must include their proportion of his general office expense, in his hourly charge. They are apt to look upon his merchandise as the services rendered and the service is ultimately more often appraised not by how long it takes, but how long it lasts, not how long it takes, but how well it looks and how long it looks well, not how long it takes, but how little discomfort is experienced, not how much time is consumed, but rather, how little.

No matter how the patient defines his goods, the dentist must make time the basis of his charges.

Short sittings are often more agreeable to the patient, than profitable to the dentist. But if by reason of superior skill, equipment or methods, a dentist can render a service in less time, other things being equal—that man is entitled to a larger fee for it. From a business standpoint a dentist must have skill. In proportion to his lack of skill he will have "make-overs." If it is a complete "make-over" he discounts his receipts 100 per cent and doubles his expense. He loses money. Partial "make-overs" in proportion. Skill is as essential to the dentist as good goods to the merchant.

Merchants sell goods, they do not manufacture, and there is nothing in the code to prevent the dentist from employing laboratory help and selling their time at a profit. It is an evidence of business ability. Business ability is a factor in the choice of methods. Other factors being favorable it admits of the cast inlay. This is a time saver. It is a conservor of energy. It lessens fatigue. It diminishes much of the discomfort. It stimulates pride in the upkeep of the mouth. It saves the teeth. It limits the use of unsightly abutments. It enlarges the field and increases the possibilities of dentistry. In fact, it revolutionizes dentistry. Oother requirements being met, business ability will not be slow in recognizing its importance.

The pianola has not supplanted the piano, and those proud of the splendid technique, acquired by years of effort in their manipulation of cohesive gold, need not be jealous of the new method. Both have their place. They are not interchangeable.

Among business men the dentist is possibly handicapped. The hours are long, the work confining, and the strain wearing. He cannot mingle as readily in the business world about him and it is more difficult to keep in touch with the industrial and real development.

If he saves money he has a more limited view of the field of investment. When he is out of his office his business income stops. His vacations cost him double for this reason. His is essentially a one man power business—his producing hours are limited. It is here that the business ability should assert itself.

He must have system. He must have assistance, trained and effectual. Some one to take complete charge of his books, records, bills, much of his correspondence, his appointments receiving and dismissing patients, telephoning, replenishing supplies, etc., and further, all this must be done at odd times, for there is enough to do at the chair and attending to the instruments to keep an assistant busy. This can only be accomplished by system, and system is but another phase of business ability.

We will assume now that the dentist has delivered his goods satisfactorily. The next evidence of business ability is to collect his fee. At present, with the majority, dentistry is essentially a credit business. He must know how and when to extend this credit.

It may interest you to know that one of the largest firms in this city absolutely refuses credit in one of the largest adjoining towns to



any one not of well-known financial standing, because of the large transient population and from the fact that so large a percentage are salaried people, living actually two or three months ahead of their salary. After more than a year over one-third of the accounts on their books, when this rule went into effect, are still unpaid. This firm seldom brings suit on anything but good sized accounts. The court records show that the dentists and physicians resort to the law more often than the merchant. This would be less necessary if the commercial agencies and "Who is Who" were more often referred to. And to make "Who is Who" more effective one should give as well as receive. It is well to state the age and amount of the account as well as other information. Many accounts paid in the end are too slow to be profitable. By using such means as are at command, looking up patients' record, and having a plain business understanding with them, rendering bills promptly, and following them up closely, little trouble need be experienced.

The future of dentistry is good. The present is excellent, and I can see no reason why the average dentist, if possessing the average business ability, should not take an enviable position in the business world. And by careful adherence to Doctor Chappel's paper on investment, have quite a tidy sum working for him while he sleeps.—*The Pacific Dental Gazette.*

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As I have said before, the getting together and becoming acquainted brings pleasure, and promotes good-fellowship and kindly feelings among us who are striving for the same results. It emphasizes the old and true saying that there are many people we dislike merely because we do not know them. After we become acquainted we find

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### THE ETERNAL QUESTION OF FEES.\*

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BY DR. C. T. HANSEN.

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Mr. President and members of the San Francisco Dental Association:

The subject of this paper, "The Eternal Question of Fees," is a problem with which, I believe, most of the dental societies of

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\*Read before the San Francisco Dental Association, December 12, 1909.

the United States, and possibly I may include, the world, have tussled and wrestled and, in some instances, have gone only far enough to resolve itself into the same phrase, "The Eternal Question of Fear." Even the few points, or such discussion as this paper may bring out, may take the same course. For I fear that I can not treat the subject with enough respect to make it demand the consideration that I feel due to its importance. However, you may argue as you will, or assign the momentous question to the blackest depth of the oral cavity, but the fact still remains—fees. Let us ask and answer the ridiculous question, "What are fees?" Webster defines the word fee as follows: "Reward or compensation for services rendered or to be rendered; especially payment for professional services, etc." Fees are the generally accepted medium of exchange for such services as are rendered—usually, in this country, United States coin or money. Money, gentlemen, pays the office rent, provides the necessities, as well as the pleasures, for the man and the mind; it makes the costly experiment possible, and thus do we advance. You can not with the mind alone, for what can you do without the coin of the realm? Name one thing, if you can, that is not directly or indirectly depending upon, for its use, consumption or possession, the medium of exchange. We may say we have lots of free air, but how long can you live on air without food, and then how do you get it if not from the results of your labor?

Admitting fees are important necessities, why do we not establish a scale, a minimum scale of charges, to protect and decently compensate us for the expenditure of vital energy we put in our work. A minimum scale without a maximum limit, as it would not be just to curtail the rights that Doctor So-and-so may have made. Let those that wish soar up to the dizzy twenty or thirty dollar-per-hour heights; I'll wish and hope to join them. If such a scale of prices be established, the benefits received will be manifold. It would give the beginner a base upon which to fix his fees, and those who are now established a feeling of certainty that when they say fifteen dollars is the price for a specified crown, the patient can not come back with the old and shop-worn, "Doctor Blank makes them for ten dollars."

You may cast about you in the commercial field and you will generally find a uniform price for certain commodities, as well as

for labor. When the cost of producing is increased the consumer pays more. Let me ask, "Did you increase your fee for placing Logan crowns recently?" You are almost ready to answer, "No." You know you had to pay eight cents more a piece for them. Now let us take a look at this item. Say there are—I do not know the exact number—four hundred dentists practicing in the city and each one places an average of three Logan crowns per month. In a year's time this increase would amount to \$1,152—1,152 good, big round dollars that we will be taking out of our pockets. If the dentists were united, would this occur? I think not. It more likely would mean that amount of increased profit. Let us, for argument's sake, mix in a little commercialism and have a glance at our profession. A student fitting himself for practice must meet certain educational requirements before he can enter the dental college. Aside from the time there spent, he now has three years more to spend in college, and to which he must practically devote all his time, and pay for the privilege. Then comes the fitting up of his office, and more time he is obliged to wait until he gets a little practice. I dare say, I am conservative when I place his investment in his business at \$8,000. I am told that a business man investing this amount and giving all his time to the investment would expect at least 100 per cent as a gross return, particularly when labor is the largest part of the expense. This would mean \$8,000 reducing itself to \$25.55 and a fraction a day for the 313 working days, allowing for no holidays except Sundays. If his hours are from 9 to 12 and 1 to 4, he must average \$4.25 and a fraction per hour. Mr. Business man does not make this by selling you \$8.50 worth of goods, charging the same on his books, and when the first of the month comes around, looks over your account, repents, takes pity on you, cuts your bill to \$6 and then waits five or six months before sending your bill. You will get it, full amount, as an early morning appetizer on the first of the month. How many hours have we labored, looking down into the reflection of the depth of a third molar pulp chamber, trying to get through an almost inaccessible root canal, working patiently for a couple of hours, and then, with a determination to compensate ourselves for those tired eyes by entering an item of—two hours treating tooth, \$10—upon our books, intentionally forgetting the previous sitting and maybe one following, and, six months later, stumbling all over ourselves to explain such a charge for treating a tooth—and a wisdom

tooth at that? "The idea, I never heard of charging for taking out a nerve!" says the patient. Would an established minimum fee per hour for such service remedy this and give us a legitimate return for our work?

A great many dentists have been giving estimates on the probable cost of dental service to patients, and this, I believe, is reducing, or placing dentistry on a par with commercialism, because, as is often the case, these estimates, instead of being used as a measure of ascertaining the amount of money to be provided for against the time of completing the work, is very often used as a fulcrum to beat upon the price of a fellow practitioner. This condition could be eradicated by establishing a minimum examination or consultation fee. Many times have we been called upon to give our advice, and "Thank you, doctor," has been considered to be a sufficient compensation for our service; and, if you should say, "Five dollars, please," you would observe that peculiar, certain look of surprise and "I never heard of paying a dentist for examining teeth!" Sounds familiar, don't it? I've been there and, I presume, I should be glad I'm alive.

When I started to practice here I examined every tooth, carefully explained, advised and estimated the cost of the work for every person that requested it—and many a "Thank you" fee I received. Some forgot that, but never a patient did I land until I mustered up enough nerve to say, "My fee is \$2.50," or whatever I felt was right. Needless to say, I did the work.

In conclusion, let me emphasize this:

Do all you can, do it well, but get paid for it. Remember you will get no pay when you can do no work.—*The Pacific Dental Gazette*.

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### DENTAL EDUCATION IN PUBLIC SCHOOLS.\*

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BY PAUL T. CARRINGTON, D.D.S.

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In order to preserve teeth it is necessary we should have clean teeth as a working basis, otherwise, our surgical efforts will be failures. Long before our branch of the profession thought of it the surgeon realized the value of cleanliness. We have only to observe the records of surgical cases in order to recognize the value of surgical

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\*Read before the Alameda County Dental Society, January 5, 1910.

cleanliness. The Japanese surgeons proved the value of cleanliness to the world. Compare their work, during the Russo-Japanese war, with that of our own experience during the Spanish war, or that of the British during the Boer war, and we see, almost to our shame, what can be accomplished by cleanliness.

Perhaps our efforts for cleanliness in the oral cavity of our older patients is discouraging. It often is. Take the few cases where it is not; the results are, one might say, beyond our desired wishes. Our work is lasting, and is doing what it should do, curing a diseased condition of tooth structure.

Surgical intervention certainly preserves a great number of teeth and is of great relief to mankind; but I believe the time is come when we, as dentists should put forth more of an effort to preserve teeth by preventing disease, rather than by our present entirely operative methods. To gain this we must start by educating children. We must do more for them. It is our duty to see they are educated up to as high a standard of oral cleanliness as they are of bodily cleanliness. What parent thinks of allowing his child to go to school with a dirty face, or uncombed hair. Yet, that same parent seldom, if ever, looks to see if the child has a clean set of teeth. If we will only stop to think, which is of greater consequence during school hours, fifty or sixty children in one room with clean faces or dirty mouths? There is only one answer. Yet, gentlemen, your children went to school today and were exposed to these conditions. Have we done anything in our profession at present to bring about a relief of this condition?

We are often asked by our mother patients as to the time they should begin to care for their children's teeth. This question suggests many and various answers. I would suggest that the time to begin the care of the child's teeth would be about the third month of foetal life. A well-directed diet and the mother taking especial care of her own teeth will do wonders for the child to be. For it is at this particular time that the mother should not suffer any unnecessary discomfort. And, perchance by a process of mental suggestion, the child might come to have a care of its own teeth, when the occasion offers. Again, the care of the teeth or oral cavities should begin at birth. I have seen many cases where nothing was being done for the infant's mouth. Under these circumstances, we can not expect the child to be comfortable, with fevered and inflamed gums. Nor

can we hope for a useful set of deciduous teeth. There are many even thousands of children at the age of four, suffering from toothache in all its different varieties. We can not do much for these little ones at the chair, but, by a system of education, most of their suffering can be relieved. An ounce of prevention in this instance, is worth more than all our surgical cure and skill.

To further this education, we, as a Society, must make the first effort, do all that is within our power and knowledge. We meet and have our discussions but of what benefit is it to the public? The public patronize us because they must. We should be such a force and such a power in our profession that they will demand us as worthy dentists. Cities of the East have awakened to these facts, the fact of dental education as an absolute necessity. The different societies have taken up the work, established free clinics for the needy, and examination of public school children followed up by periodical talks to the classes on the proper care of their teeth. If we are to be civilized (and of civilization we must be prepared to meet the consequences), there is no denying that our higher life costs something. It may be our teeth. So let us endeavor to diminish this cost by a system of united effort in this society. Are we to be the last to take up this great work for our fellow beings? A few are no doubt trying, but these few are almost considered cranks. It takes a crank to start most every wheel.

This paper will not have failed, if it serves to impel this society and awaken its efforts in a strenuous movement to bring about the examination of public school children and the establishment of a free clinic for the needy. Thereby giving genuine professional skill, instead of allowing these deserving persons to be left in an unaided position or sending them to places where the services are not worth the fee asked.

Let our Society work with the Boards of Health and of Education. Appoint some members who will give talks to the children, relative to the proper care of their teeth. Have these talks at least once a month, the same talks to each school, thus eliminating different ideas upon the same subject and not confusing the young pupils. It means work. But such work in the end is pleasure and taken up by sixty or seventy men, such as we have, will do great good and not be hard upon any single member. The ultimate success will be far greater than we at present imagine.

## SUGGESTS THE GREAT NEED OF COMPULSORY DENTISTRY AMONG ALL CLASSES OF PEOPLE.

By Ella Wheeler Wilcox.

Copyright, 1906, by American-Journal-Examiner.

[The friends of Ella Wheeler Wilcox will be agreeably surprised upon reading the strong article she wrote on "Compulsory Dentistry," which is here reproduced in detail. Let your patrons see this admonishment.—EDITOR.]

A man, discussing the charities established throughout our most unjust but remarkably charitable land suggested a new philanthropy which would be a greater value to the poor than all the libraries in America.

The charity suggested was a fund for the establishment of free and compulsory dentistry for the poor.

Did you ever notice the teeth of the poor? Not one man or woman in the ranks of the humbler class of laboring people but is suffering from neglected teeth.

Little children, born of improperly fed mothers (and improperly fed themselves), develop dental trouble early, and even those who have every condition to aid them, from the hygienic standpoint, need attention in the second teething period.

It is not a matter of personal appearance only.

That is a small part of the importance of giving care to the teeth.

It means health as well.

## VALUE OF DENTISTRY.

Any physician or dentist will substantiate the assertion that every phase of indigestion, catarrh and neuralgia, besides scores of other ailments, can originate with neglected teeth, and often does.

Dentistry has reached a scientific stage now, where it is the compatriot of skillful surgery.

I have seen a young girl, disfigured from childhood by what is known as a "squirrel mouth" (the under teeth setting far inside the uppers), changed into a beauty by a few months under the care of a skilled dentist, and not only changed in appearance, but benefited in health, for the "squirrel mouth" is incapable of proper mastication of food.

I have seen a man, with the "bull-dog mouth" (the under teeth protruding unpleasantly), similarly transformed. And again, cases of "suppressed teeth," which remained in the roof of the mouth, leaving ugly spaces in the teeth, are cured and overcome by careful dentistry.

## NEGLECT DANGEROUS.

Blood poisoning and skin troubles are not infrequent results of neglect of the teeth.

Every public school should have its "dental inspector," and every parent able to pay the dentist should be compelled to send a child to the specialist twice a year, and every child of poor parents should be obliged to go under the care of a clinic or body of dentists, paid by the fund.

There are two sides to the question of compulsory vaccination, and innumerable cases of blood poisoning, death, and life-long invalidism, blindness and deafness from the effects of vaccination.

But compulsory dentistry would lead to no such disasters.

It would, on the contrary, result in untold health to humanity, and prove a blessing to the world.

Who will establish the fund?

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FACTS OR FICTION?

[It does not sound strange to a dentist, but the general public may question it. There can be no harm in letting your patients read this well written item. It came from the pen of a person of literary standing.—EDITOR.]

"Leonard Ayers, expert of the Sage Foundation, has shown that the condition of the teeth of New York school children alone costs that city \$800,000 annually. How does he know? By a series of investigations in which he has been aided by school teachers, showing that a child with seriously defective teeth requires half a year longer to get through eight grades of the public school. Allowing \$40 a year for the education of the child, the minimum approximation in New York City, the extra half year makes an added expense of \$20. Of the 70,000 children entering the city's schools annually, 40,000 have seriously defective teeth, hence the estimate. This does not show the entire loss, however, as many more children are affected by oral and other diseases. Mr. Ayers says: 'New York expended last year nearly \$35,000,000 on its schools. If three-fourths of the children are suffering from physical defects, which cause them 9 per cent slower progress than if the defects were removed, it means that the city has spent, in round numbers, \$2,400,000 a year in a useless attempt to impart knowledge to pupils incapacitated for receiving it.'

"Juvenile Judge Mack of Chicago gives indisputable testimony that the 'badness' of many children has been provoked by irritability caused by tooth decay, and the following incident from real dental practice may indicate how such reflex action can be brought about.



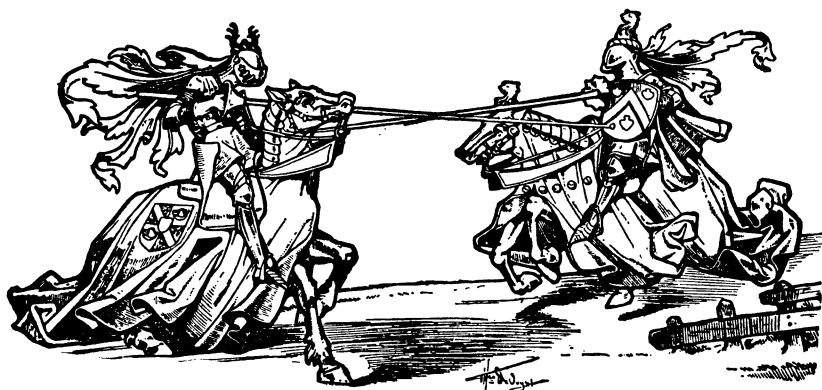
Said a prominent dentist: 'Just a few days ago a mother brought her little boy to me and said: "Fix the permanent teeth of this child, but don't do anything to his temporary ones; it isn't worth while." He had only four permanent teeth, because he was only 7 years old, but three of his temporary teeth were badly abscessed. I showed them to her, but she said, "O that won't hurt him any; they will soon be coming out." So I told her if she really insisted on leaving the teeth that way, and really believed they didn't hurt him, to watch the child, see if his sleep rested him, see if he had headaches or acute indigestion, if he was irritable and quarrelsome. I showed her how almost any abscessed tooth would furnish from half an ounce to an ounce of pus every twenty-four hours, which either goes into the system through absorption or by way of the stomach, laden with bacteria. The mother hardly waited for me to finish before exclaiming, "Doctor, that's just what's the matter with my boy now; he can't play with his own brothers without quarreling all the time, and the teacher can't get along with him in school." I treated the abscessed teeth, and the next week she reported to me that the irritable symptoms had entirely disappeared, that the child got up in the morning rested, was agreeable with teacher and playmates, and that his digestion was regular.

"There are doubtless thousands of children being whipped and punished at home and in schools, and turning out badly in the end, when really the only trouble is that they are fighting with septic poisoning in their ill-nourished systems.

"It was a layman, Horace Fletcher, that first called attention to the obvious fact that the mouth constitutes the first three inches of man's alimentary tract, and is the only portion of this exceedingly important portion of his anatomy over which he has control. Mr. Fletcher has provided sufficient demonstration of the possibility of greatly increasing health, comfort, efficiency, prosperity and longevity by the simple expediency of keeping these three inches of oral cavity in sound, wholesome condition, and of making their food-grinding mechanism perform the functions for which it was created. Last year there was organized in Berlin an international committee to undertake a campaign for public oral hygiene. Since then, twenty National committees, including one in the United States, have been formed. The aim of this campaign is to educate, through the school children of every nation, the masses to the importance of hygiene of the mouth and proper mastication."

PAULINE PERIWINKLE.

# PROFESSIONAL ARENA.



[In the space devoted to this department many of the so-called solved problems are to be opened for re-examination. Besides such other topics as are of greatest importance will be brought to the attention of the readers, and ablest talent will be engaged to discuss interesting dental themes. The subject under consideration for the present is: "Should the dentist charge by the time or service rendered?" We invite you to send in a short discussion on this problem. This is a topic in which all are concerned, and your opinion and experience is sought, as good will come from these comparative deductions.—  
EDITOR.]

## THE EMOLUMENTS OF DENTISTRY.

Was Dr. W. W. Allport right? Shortly before he died in 1893, he wrote:

"There is a very erroneous impression in the public mind in regard to this, for generally, after all expenses are paid, dentistry is not the lucrative calling that many suppose it to be. I have been, and still am, very fond of the practice of dentistry, and am anxious to see both its science and its practice advanced in the highest degree possible. The time was when there was no wish nearer my heart than to see at least one of my sons engage in the practice of dentistry, but I can now say that I am truly thankful that none of them have done so; for such a great horde of improperly educated graduates are turned out from our dental colleges that the profits of the profession are no longer tempting, and, to say the least, its respectability is not now what it should be. While a few of these graduates may be considered as well qualified to practice, a large majority are not, nor are they making respectable livings. Dr. Harlan says that there are very few of the dentists in our city doing a business of \$25,000 per year, and many of them not over \$2,000.

This estimate is too high, and I challenge any one to show that, out of nearly seven hundred dentists in Chicago, we have five who are doing a business of over \$15,000 per year, and that there are ten more who are doing a business of over \$10,000 or twenty more who are doing over \$5,000 a year, (while there are large numbers whose net income will not reach \$1,000); and that there are not more dentists in the city whose net income is not over \$1,500 than there are of those who earn \$3,000 per year, and yet in their scramble for money, our colleges *will have* students; and to get them the entrance examination is made easy, as their graduation is as good as assured, and they are encouraged to believe that a lucrative practice awaits them as soon as their course is finished; notwithstanding the fact that, with a very large majority of the practitioners of dentistry, the profession is fast becoming a beggarly calling."

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#### CHARGE FOR TIME AND NOT BY THE JOB.

Every one will agree that it takes time to do all things well.

The tendency of the times is toward performing every piece of work as quickly as possible and not as well as possible.

Charging for time encourages the operator to do better work and thereby benefiting the patient while they pay for what they get.

I never hire any one to work for me by the job because if they haven't competition they are going to bid safe and if they have they will cut corners and make it anyway.

My D. D. S. understands that when he does work on my oral cavity that he will be paid for it, this arrangement encourages him to do his best and the best is none too good for me.

Fixing value of services by the hour would be an aid to the beginner as few of them know what their services are worth.

We should base our charges by the hour on the amount of our living and office expenses with a small extra for the stocking and we should not guess at these amounts either or at the end of the year we might find the stocking empty and full of holes.

I also think that gold work should bring double the fee that all other work does by the hour.

Half of the recurrence of decay around fillings is due to improper cavity preparation. If we worked on the time basis the exten-

sion for prevention of future decay would be more practiced by those who know how. It probably would take one dollar's worth of time to prepare some cavities properly that we get if we value our time at only two dollars per hour.

There would be fewer patients become discouraged and have their teeth extracted, because teeth they had repaired were not satisfactorily done, when in most cases the trouble was due to hasty and careless work; probably some kind hearted brother up the street had taken the job for five dollars, which was probably only about half what the operation was worth if done by the hour at so much per hour. Nowadays too many minimum charges for an operation is fifty cents and the maximum charge is five dollars so that patients sometimes take the liberty of offering one or the other of these amounts without inquiry.

Doubtless many operations are hardly worth the minimum charge, but I believe our patients would come nearer getting value received if they paid for the actual time spent on their oral cavity.

In the matter of prophylaxis the majority of patients presenting their teeth and gums for treatment are slighted because the customary charge by the job for such treatment is one dollar, hence the treatment is superficially done or worse yet, turned over to the office girl.

Did it ever occur to you that we dentists are sometimes to blame for pyorrhea alveolaris beginning in patients' mouths because we can not afford to properly remove the scales and treat the gums;

The patients needing artificial dentures would be better fitted and the work more artistic instead of the monstrosities we so often see if the dentist received pay for the actual time necessary for doing the best plate work from start to finish.

Until we get onto the hour basis the majority of us can not expect to have an income equal to our plumber.

F. EMLEY, D. D. S.

# WHO'S WHO AND WHY.

[Under this title the journal will devote some space to acquainting its readers with the presidents of state dental, and important local societies; and treat of such other distinguished dental practitioners as the personal news items merit. By this means the readers are brought into a closer relationship with the leading spirits of their profession, and a better understanding can grow out of such an acquaintance.—EDITOR.]

It will be gratifying news to dentists in general to know that W. W. Hawke, D. D. S., of Flemington, N. J., has been made a member of the State Board of Public Education.

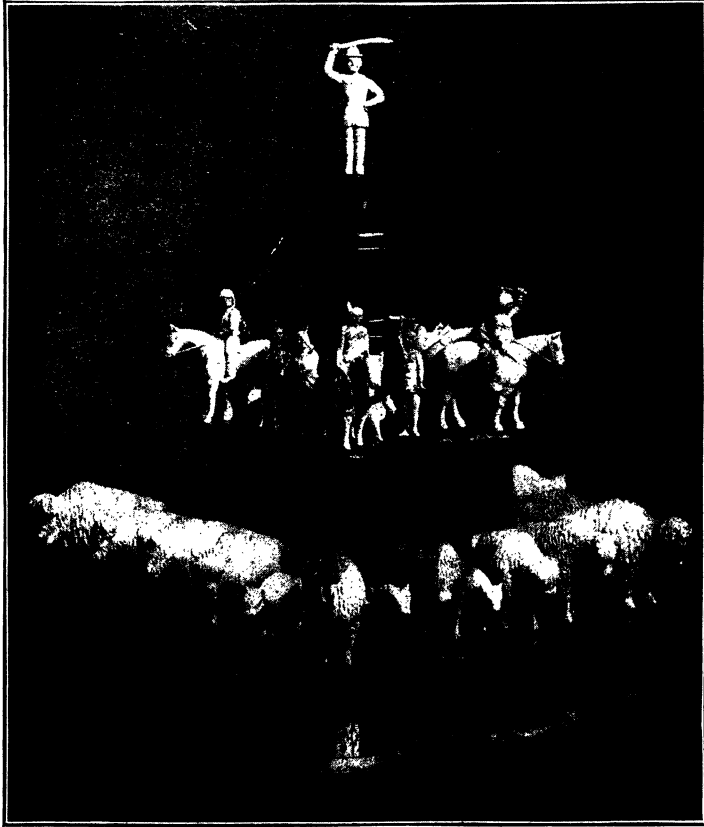
There is no reason why one of our profession should not represent the public interest, in a most capable manner. His preliminary as well as his college training, together with his immediate acquaintance with the people should make him a valuable member of this educational commission. Dr. Hawke, was the chairman of the committee of essays of the State Dental Society of this year, and was elevated to the position of vice-president of the organization. THE AMERICAN DENTAL JOURNAL extends congratulations, and wishes him further honors.



DR. T. S. HITCHCOCK.

One of our profession, who has accomplished much in the artistic lines and deserves consideration, is Dr. T. S. Hitchcock, of Oswego, N. Y. Many of the products of his dexterous hand have attracted the attention of talented art critics. In his spare time, or when he wished recreation from the strenuous tasks of dental practice, he employed himself with the blades in carving from wood, iron and stone, some very happy conceptions, among the most exquisite creations, is the "Last of the Dakotahs," here reproduced. But his "Judgment of Paris," "The Buffalo Drove," and his "Group of Elephants," merit

appreciative comment. It must not be overlooked, either, that he carved splendid statuettes of Roscoe Conkling, Ada Rehan, and Roe and Reed. Commenting on this phase of physical and diversion he writes: "This work makes me very strong in my arms, wrists and



"LAST OF THE DAKOTAHS."

fingers. I have also learned to do work with my left hand and can fill teeth or extract teeth with my left hand. If it could be taught in our colleges, it would be of immense advantage in after years—this use of the left hand."

If rest is brought about by change of exercise, there is every reason to believe that recreation can be obtained by affording both body and mind an alternate employment—the vocation and the avocation.

# ANNOUNCEMENTS.

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## AMERICAN MILLER MEMORIAL—HONOR TO WHOM HONOR IS DUE.

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All dentists at home and abroad are debtors to the late W. D. Miller, whose scientific mind, untiring energy and pride in American citizenship has been one of the potent factors in placing this country at the head of the profession.

Let the old adage, "A prophet is not without honor save in his own country," be the exception in this instance and every loyal American be represented in a lasting memorial to his useful life.

The proposed bronze will be erected in the capital city of his native state, that he may share the well-merited distinction of being one of our greatest men.

The invitation to contribute is extended individually and collectively through the societies of the country, and your support, both moral and financial, is urgently solicited.

In order that the work may be quickly and efficiently accomplished, contributions may be sent direct to the treasurer of the American Miller Memorial Fund, Weston A. Price, 10406 Euclid Ave., Cleveland, Ohio.

Executive Committee—Edward C. Mills, Columbus, Ohio; J. R. Callahan, Cincinnati, Ohio; S. D. Ruggles, Portsmouth, Ohio.

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## NEW YORK ALUMNI ASSOCIATION, XI PSI PHI FRATERNITY.

The annual fall meeting and election of officers of the New York Alumni Association, Xi Psi Phi Fraternity, will be held at Healy's, Columbus avenue and Sixty-sixth street, New York City, at 8 p. m., Wednesday, October 12th, 1910. Every Xi Psi Phi Alumnus residing in or about New York City is urged and expected to be present.

# EVERYBODY'S CORNER.

**Dentist Injured.**—Dr. Louis Dessaint, a well-known dentist of Davenport, Ill., sustained injuries June 30 which may prove fatal. The doctor with several friends were in the doctor's launch when something went wrong with the engine. He attempted to fix it while the engine was still in operation and his coat caught in the propellor shaft. He was taken to the hospital, where it was found he was suffering with concussion of the brain.

**Paper Used for False Teeth.**—The most novel use of paper is in the manufacture of false teeth by the Germans, who say the product keeps its color well and is decidedly stronger than the porcelain imitation.

## MARRIAGES.

**Hunter-Sheek.**—Dr. William L. Hunter, of North Yakima, Washington, was married June 26 to Miss Florence M. Sheek, of Portland, Oregon.

**Mitchell-Mulland.**—Dr. George C. Mitchell, a practicing dentist in Niles, Ohio, was married June 30 to Miss Julia Mulland, of Bellevue.

**Plan War on State Board.**—Eight "flunked" candidates in Los Angeles, California, organized a body June 29 to place their examination papers before a special commission, composed of reputable dental authorities of the state. They will attempt to show that the State Board did not use proper care in correcting their papers.

**Dentist as Kidnap.**—After a search series lasting more than ten months, in which at least a dozen states were covered, Dr. G. Gordon Martin, a dentist wanted in Houston on an indictment charging him with kidnaping, has been located in Lawrenceville, Ill. The indictment charges Martin with kidnaping the 14-year-old daughter of Mrs. E. Barrow, who resides with her family in Houston, Texas.

**Dental Assistant Burned.**—Thinking that his apparatus was ready for operation, Grover Whiteman, of 2306 Prairie Ave., South Bend, Ind., was seriously injured Thursday. Whiteman had been using the vulcanizer, and when through omitted to permit the steam to escape. A few minutes later he raised the lid of the vulcanizer with the result that the steam rushed into his face with great force, severely burning him.

**To Show Washington's Teeth.**—George Washington's teeth will form a part of the exhibit of oral hygiene, which is to be a feature of the convention of the National Association of Dental Surgeons at Denver next week. The teeth are false, and were worn by the "father of the country" at his first and second inaugurations. The teeth are of ivory, attached to plates of gold, with a cement of German silver.

**Dentist's Office Robbed.**—While Dr. F. C. Kuttler, a Moline dentist, was banking his receipts yesterday afternoon he had a visitor at his office who failed to leave a card. When he returned from the bank he discovered that gold fillings valued at \$100 had disappeared in his absence.



**Dentist Held for a \$13,500 Swindle.**—Charged with swindling a Brooklyn (N. Y.) woman out of \$13,500 and several valuable bonds after marrying her, Dr. Henry B. Keeler, said to have been a prominent Gotham dentist, was arrested in Detroit. In company with him, held at police headquarters, is a woman who, it is alleged, posed as his sister and assisted him in getting \$13,500.

**Came Home Wealthy.**—According to information received here, Dr. B. D. Schrantz, who went six years ago to practice dentistry in Calcutta, India, will return next year to make the United States his home. During the time Dr. Schrantz has been in India he has accumulated nearly \$20,000 working for Smiths, an American firm of dentists, on a commission basis.

**Quits Dentistry for Real Estate Business.**—Dr. Dangs, a dentist in Mt. Carmel, Ill., has given up the practice of dentistry and entered into the real estate business.

**Dentist Relieves Deafness.**—De Forest McLin, 18 years old, was suddenly cured of deafness by a dentist extracting a new wisdom tooth. The deafness had come on only recently, and it was found that the tooth was causing a pressure on the auditory nerve.

**Crushed by His Own Auto.**—Dr. B. H. Reid, a well-known dentist of Anderson, Ind., was seriously injured July 27 when run over by his own automobile. The doctor was in front of the machine repairing it when the engine started at full speed running over its owner. He suffered a broken leg, a broken collar bone and several fractured ribs.

**Robberies.**—Dr. H. T. Zimmerman, Breckenridge, Minn., loss, \$50.00; Dr. H. A. Zeigler, Moline, Ill., loss, \$60.00.

# IN MEMORIAM.

**Dr. Milton B. Straight**, the oldest practicing dentist in the State of New York, died June 25 at Hornell, N. Y. For many years he was a director of the Academy of National Science, a member of the Fine Arts Academy and a recognized art critic. He was also a charter member of the Buffalo Dental Association and of the Eighth District Dental Society. He is survived by his wife.

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**Dr. Robert Bell**, a dentist in Columbiana, Ohio, died June 28. The doctor was 85 years old and practiced his profession until a few years ago, when old age incapacitated him.

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**Dr. C. B. Roland**, former president of the Illinois State Dental Society, died June 30 at his home in Alton, Missouri. The doctor practiced his profession for forty-one years without a vacation or without being ill for a day. He is survived by a widow and one daughter.

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**Dr. Emory Totten**, a pioneer dentist, who practiced his profession in Crawfordsville, Ind., for almost half a century, died July 12 of senility. The doctor was seventy-five years old and is survived by a widow, two brothers and one sister.

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**Dr. Walter C. Dyer**, formerly one of the best-known dentists in Chicago, died July 29, after a prolonged illness. The doctor was 66 years old, and came to Chicago in 1865, where he practiced dentistry until 1892, when he suffered a stroke of paralysis. He is survived by a widow and two sons.

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**Dr. William Hiram Todd**, died in Columbus, Ohio, June 19, in his 57th year. Dr. Todd was a graduate of the Ohio College of Dental Surgery, 1882, president of the Ohio State Dental Society in 1895 and president of the Ohio Dental Library Association at the time of his death.

**DRAKE UNIVERSITY**  
**COLLEGE OF DENTISTRY**

**DR. W. H. DEFORD, Dean**

Excellent location; superior faculty;  
abundant clinic

FOR CATALOGUE ADDRESS

**Drake University BOX D Des Moines, Iowa**

By mentioning the **AMERICAN DENTAL JOURNAL** when writing to Advertisers you will confer a favor upon both the Advertiser and the Journal.

**Wanted****For Sale****Exchange**

**NOTE:**—Advertisements in this Department not exceeding fifty words will be published Free for three insertions for subscribers whose subscriptions have been paid for **one year in advance.**

Advertisements under regular heading from non-subscribers will be inserted for a charge of five cents per word. Remittance in full must accompany such copy.

Copy must be on file in our office by the 15th of the preceding month in which insertion is desired.

In answering these advertisements through the American Dental Journal, enclose your answer in stamped envelope with the advertiser's letters marked on the corner. **No unstamped letters will be forwarded.**

We are not responsible for any advertisement appearing in these columns.

**PUBLISHERS.**

**CASH FOR YOUR REAL ESTATE OR BUSINESS**—No matter where located, if you want to buy, sell or exchange any kind of property or business anywhere at any price, address Frank P. Cleveland, Real Estate Expert, 2147 Adams Express building, Chicago, Ill.

**WANTED**—A partnership with man with practice of over \$5,000 per year, in state of either West Virginia, Maryland or Tennessee, by a good, quick operator. Four years' practice in West Virginia. Single. Address, No. 1, care of American Dental Journal.

**FOR SALE OR EXCHANGE**—Residence and dental office in splendid county seat town of Oklahoma for same proposition in Illinois, Indiana or Iowa. Address S. L. C., care American Dental Journal, 39 State street.

## WANTED!

original and interesting articles on all topics pertaining to Dentistry.

### "THE AMERICAN" DENTAL JOURNAL

is not connected with any society, fraternity or trust. It is free and independent, and is published to elevate and promote the advancement of the profession.

**Won't YOU Please Help?**

**WANTED**—Dental practices.. My method of finding buyers is successful. No publicity for you. Write for information. Unlocated dentists write for bargain sale lists. Mention states desired. The Dentists' Middleman, C. M. Cryor, D. D. S., Box M., Franklin Grove, Ill.

**FOR SALE**—Practice established ten years; going abroad; outfit modern; switchboard, compressed air, furnace, fountain, cuspidor, electric engine, lathe, etc. City, 50,000, Iowa. Reception room shared with a leading physician. Bargain; sacrifice, \$600 quick. Address, "Abroad," care American Dental Journal.

## PYORRHEA

Owing to the value of Sal Hepatica in the treatment of diseases of the uric acid diathesis it has been found specially beneficial in pyorrhea alveolaris, a malady in which rheumatism and gout are potent causes. It contains the salts similar to the celebrated Bitter Waters of Europe, fortified by addition of Lithia and Sodium Phosphate. It stimulates liver, tones intestinal glands, purifies alimentary tract, improves digestion, assimilation and metabolism.

Write for free samples.

**BRISTOL-MYERS CO.**  
BROOKLYN-NEW YORK



By mentioning the **AMERICAN DENTAL JOURNAL** when writing to Advertisers you will confer a favor upon both the Advertiser and the Journal.

**FOR SALE**—One blow-pipe outfit (Buffalo), complete, bellows, generator and handpiece, 1 R. & R. operating stool, 1 set, with case, Jenkins' porcelain enamels, 1 S. S. W. swaging outfit, 1 Jenkins' furnace, 1 S. S. W. lathe head, 1 Somnoform outfit, 1 old style S. S. W. instrument case, S. S. W. engine mallet, old style walnut cabinet, L. C. Smith typewriter No. 2 (good as the day it was uncrated). I want a modern switchboard or a good dental chair. Address "Osborne," care American Dental Journal, 39 State street.

**FOR SALE**—Clark gas outfit, roll top, gold bench and Sharp seamless crown outfit No. 3 set. Address A. G. T., care American Dental Journal, 39 State street.

**FOR SALE**—\$2500, Illinois office, no competition, 1000 inhabitants; bargain, \$500.00. If you mean business, reply. Address "Quick," care of American Dental Journal, 39 State street.

**FOR SALE**—Swell and most up-to-date dental outfit in Ohio town of 15,000 inhabitants. Best equipped dental office in city. Splendid opening. Change of business on account of ill health. Everything in first-class condition. A bargain. Address "A. B.," care American Dental Journal, 39 State street.

**FOR SALE**—A \$5,000 Michigan advertising office, long lease, low rent; inventory, \$350. A bargain at \$500. Address No. 1000, care of American Dental Journal.

**FOR RENT**—Old established dental parlors in a town where a good man can make money. Address at once. N. C. Jorgenson, Cando, N. D.

**FOR SALE**—Dental office and practice established six years. Favorite Columbia chair, fountain cuspidor, R. & R. cabinet, R. & R. mechanical cabinet and full outfit of laboratory tools. Also good reception room outfit. Monthly receipts \$200. Rent low, in new building. Small city in Indiana. Practically no competition. Will sell at a very low price. Address N. C. V., care American Dental Journal, 39 State street.

**FOR SALE**—Old established office in county seat town of 2,000. Northern Indiana, good prices, reasons for selling on application. Address "Indiana No. 2," care American Dental Journal.

**WANTED**—Second hand gas outfit, face inhaler, what have you? Address "Gas," care American Dental Journal, 39 State street.

**WANTED**—A dentist in every state to demonstrate our dental specialties. Easy money for good demonstrator. For particulars address Metalline Manufacturing Co., 1212 O street, Lincoln, Neb.

**FOR SALE**—Complete outfit, Harvard chair, bracket and table with cuspidor. R. & R. cabinet, S. S. W. foot engine, foot lathe, bellows, etc., \$100. Address "Mate," care American Dental Journal, 39 State street.

**WANTED**—A young single graduate, must be good all around operator and plate worker. Address Operator, care American Dental Journal.

**FOR SALE**—Elgin vacuum outfit, new, never been used, first check for \$20.00 takes it, money back if not satisfied. Address Dr. S. Gallagher, care American Dental Journal, 39 State street.

*Antiphlogistine*  
Trade Mark

of inflamed gums and jaws, and their unanimous testimony shows that a beginning inflammation is resolved while an abscess is always localized, so that it can be opened from inside the mouth. It may be used directly to the gum and on the outside of the face at the same time. Send for booklet.

THE DENVER CHEMICAL MFG. CO., NEW YORK.

1. The first part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

2. The second part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

